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1
2 BALLY MANUFACTURING CORPORATION,
3 a Delaware corporation,
4 Plaintiff/Counterdefendant,
5 vs.
6 D. GOTTLIEB & CO., a corporation,
7 WILLIAMS ELECTRONICS, INC., a
corporation, and ROCKWELL INTERNATIONAL
CORPORATION,

) Docket No.
) 78 C 2246
)
) Chicago, Illinois
) March 20, 1984
) 10:50 a.m.

Defendants/Counterplaintiffs.

VOLUME XVII-A
TRANSCRIPT OF PROCEEDINGS
BEFORE THE HONORABLE JOHN F. GRADY

TRANSCRIPT ORDERED BY: MR. JEROLD B. SCHNAYER
MR. MELVIN M. GOLDENBERG

APPEARANCES:

For the Plaintiff/
Counterdefendant:

MR. SCHNAYER
MR. TONE
MR. MATHIAS
MS. SIGEL

For the Defendants/
Counterplaintiffs:

MR. LYNCH
MR. HARDING
MR. GOLDENBERG
MR. RIFKIN
MR. ELLIOTT

Court Reporter:

LAURA M. BRENNAN
219 South Dearborn Street, Room 1918
Chicago, Illinois 60604

DOCKETED
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2 THE CLERK: 78 C 2246, Bally v. Cottlieb, case on
trial.

3
4 THE COURT: Good morning, counsel.

5 MR. LYNCH: Good morning, your Honor.

6 MR. TONE: Good morning, your Honor.

7 If the Court please, may I move to file the
8 additional appearances of two of my younger colleagues who
9 have been working on the case, but whose appearances are not
on file.

10 THE COURT: Surely.
11 MR. TONE: Mr. John Mathias and Ms. Gabrielle
Sigel.

12 THE COURT: I think we'd be in trouble here
13 especially without Ms. Sigel.

14 MR. TONE: Yes, indeed we would be, your Honor.

15 MR. GOLDENBERG: Mr. Englehardt is on the stand,

16 Judge.

17 THE COURT: Yes.

18 MR. GOLDENBERG: I indicated when we closed yester-
day I had one or two questions. I have decided not to put
19 those questions, and I think Mr. Harding has cross examination
20 for Mr. Englehardt.

21 THE COURT: All right, fine.

22 WILLIAM H. ENGLEHARDT, PLAINTIFF'S WITNESS, PREVIOUSLY
23 SWORN.

24 CROSS EXAMINATION (Continued)

Englehardt - cross

242.

THE COURT: Good morning.

THE WITNESS: Good morning.

BY MR. HARDING:

Q Mr. Englehardt, when you hired into Bally in March of
5 1974 you indicated that you were interviewed and effectively
6 hired by Mr. Frank Bracha at Bally. Is that correct?

A Yes, sir.

Q What was Mr. Bracha's title at that time?

A I don't know.

Q Do you know what his responsibility was?

A His responsibility, I think, encompassed the electronics
group as it existed there at that time. And he reported to
Joe Lally who was vice president of engineering, I think.

Q And within his responsibility was pinball, pinball
games?

A Yes, I think that's correct.

Q When you interviewed with Mr. Bracha you indicated that
by that time you had computer experience and electrical or
electronic design experience, correct?

A Yes.

A During your interviews, didn't you talk with Mr. Bracha

about the feasibility of microprocessor controlled pinball?

A Yes, we did.

A And didn't you conclude that at that time, in your

Q opinion, it was technically feasible?

Englehardt - cross

1 A I thought it could be done.

2 Q And that it was technically feasible, in your opinion?

3 A Well, I'm not sure of the difference in those words
4 maybe, but in simple language I thought it could be done, yes.

5 Q Well, do you recall that those were the words that you
6 used in your earlier deposition?

7 A No, I don't.

Englehardt - cross

Q Let me refer you, Mr. Englehardt, to page 144 of the deposition that was taken February 27, 1980, and I will read it.

"Q Now, did you come to any conclusion as to how the computer could be used to control the pinball game replacing the electromechanical control?

"A Just that it seemed technically feasible."

Do you see that?

A Yes.

Q So you agree then that during your interview with Mr. Bracha you had realized that microprocessor controlled pinball, as of March 1974, was technically feasible?

A Well, apparently that is what I said at that time, yes.

Q During this interview you had discussions with Mr.

Bracha concerning a microprocessor pinball project and that you may end up working on a microprocessor pinball project, correct?

A Yes.

Q The first project that you started working on at Bally was on a microprocessor controlled slot machine, correct?

A That is correct.

Q During that time, however, you had discussions with Mr. Bracha concerning the usefulness of the microprocessor approach for controlling pinball, isn't that correct?

A That is right.

Q One of the utilities of microprocessor controlled pin-

1 ball would be the ease of changing from game to game merely
2 by changing the software?

3 A That is right.

4 Q This was before you started or you and Bally started in
5 the September-October time frame in actually developing a
6 microprocessor controlled pinball machine?

7 Well, let me rephrase the question.

8 A Yes. I can't say for certain when I had those original
9 conversations with him that I had that discussion about
10 changing the program relative to pinball games. I would be
11 pretty sure that I had that discussion relative to slot
12 machines during that period of time before the October time
13 frame. I am not certain that I had it relative to the pin-
14 ball games.

15 Q You realized prior to the September-October '74 start
16 date that that was one of the utilities of a microprocessor
17 controlled system, that you could adapt the controller from
18 game to game merely by changing the software?

19 A I realize now, you know, that that is the situation.
20 I can't remember exactly what we discussed in that regard
21 specifically then.

22 Q But you said you did remember that for a slot machine?

23 A I do remember it for the slot machine, and the reason--
24 well, I do remember it.

25 Q Yes, so you realize that was a utility of microprocessor

1 controllers?

2 A Yes

3 Q One of the concerns that you and Mr. Bracha had before
4 September on microprocessor controlled pinball was cost,
5 isn't that correct?

6 A That is right.

7 Q Bally had streamlined their electromechanical manufac-
8 ture such it was very cost effective to manufacture an
9 electromechanical pinball game by September, 1974?

10 A I don't know to what extent they had streamlined it.

11 The cost was something we were considering.

12 Q That was a major consideration?

13 A Yes, cost was a consideration.

14 Q After the September-October time frame you were desig-
15 nated the group leader, were you not, to design the Bally
16 version of the computer controller?

17 A Yes.

18 Q That project involved the conversion of an existing
19 Bally Boomerang electromechanical game to an electronic or
20 computer controlled solid state version of the Boomerang, is
21 that correct?

22 A Yes.

1 Q The conversion of the Boomerang was completed at least
2 by May 2nd, 1975, correct?

3 A We had a demonstration then for management, yes.

4 Q As of that time, the converted Bally Boomerang played
5 as a pinball machine, correct?

6 A Yes. It played as a pinball machine.

7 Q In fact, it emulated the electromechanical Boomerang
8 game play?

9 A I am not sure what, you know, significance you are
10 attaching to that word.

11 In the general sense of the matter, I would think
12 that it played as a pinball game. It was certainly not a
13 producible pinball game at that point or one that you would
14 put on the marketplace.

15 Q All right. Now, that converted Boomerang -- by converted
16 I mean the Boomerang that had the microprocessor controller
17 in it that played as a pinball machine on May 2nd, 1975 --
18 that converted Boomerang machine used matrix multiplexing
19 of the playfield switches, correct?

20 A That is right.

21 Q It used matrix multiplexing of the digit displays?

22 A Yes, that is right.

23 Q Now, isn't it correct that --

24 THE COURT: Excuse me. The first thing was what?

25 MR. HARDING: Matrix multiplexing of the playfield

1 switches.

2 THE COURT: Of the playfield switches.

3 BY MR. HARDING:

4 Q Isn't it correct that one of the reasons that you decided
5 to use matrix multiplexing of the switches was because that
6 your training up to that time had led you to understand you
7 wanted to minimize the number of pin connections in the
8 circuit?

9 A By pin connections I am talking about the input/
10 output pins.

11 A Yes.

12 Q Now, the converted Boomerang used what type of a micro-
13 processor?

14 A That was a 6800.

15 Q Who manufactured the 6800?

16 A Motorola and AMI at that time.

17 Q Did you use the Motorola version?

18 A I think so, yes.

19 Q You indicated also by this time that you were familiar
20 with the Intel 4-bit processor, correct?

21 A Yes.

22 Q Were there any differences between the Motorola 6800
23 processor and the Intel processor in connection with a number
24 of input lines to the processor?

25 A Yes.

1 Q The difference is that the Intel machine was a 4-bit
2 processor or had 4 input lines, and the Motorola 6800 was an
3 8-bit processor and had eight input lines, is that correct?
4 A That is a difference.

5 Q That is one difference?

6 A Yes.

7 Q Another difference is that the Motorola 6800 processor
8 was a so-called second generation processor that operated much
9 faster than the Intel 4-bit processor, isn't that correct?
10 A Yes.

11 Q Now, I think you may have mentioned earlier that you were
12 involved in the design of the original 6800 processor, is that
13 correct?

14 Q Well, I was involved in the original 6800 processor, but I
15 was not involved in the design of the original 6800 processor.
16 Q So, you were not involved in the original 6800 processor.
17 Q I think we pretty much agree on that.
18 Q And if you are not involved in the design, the design was
19 carried out by someone else?

20 Q No.

21 Q You didn't do the design?

22 Q You didn't do the design?

23 Q You didn't do the design?

24 Q You didn't do the design?

25 Q You didn't do the design?

1 Q And specifically the Intel four-bit processor had an
2 instruction time of 10.8 microseconds, whereas the Motorola
3 6800 instruction time was on the order of 2 microseconds.
4 Isn't that right?

5 A Number one, I don't know that that was the case for the
6 Intel device; and, number two, that's not really a fair
7 comparison of speeds.

8 Q Well, I'm asking for facts.

9 A Well, in reality the Motorola cycle time was one micro-
10 second, and I don't know what the situation was for the Intel
11 part.

12 Q All right. Is one significance of the -- well, let me
13 ask you: How many -- in your matrix multiplexing of the play-
14 field switches, how many -- what was the maximum number of
15 playfield switches that could be employed in a given column of
16 the matrix?

17 A I think we were by 8 in that game.

18 Q And if you used the Intel processor, the maximum number
19 would be 4 switches, correct?

20 A No.

21 Q Per column. I'm sorry.

22 A No. I don't feel that that's the case.

23 Q All right. In fact, explain to me what is the case.
24 Why, when you have a matrix of columns and rows, is the
25 maximum number of switches in a column not 4 for the Intel

2 4-bit processor?

1 A Well, I don't think that the number of returns, for
2 instance, on a column is just directly related to the number
3 of bits in the processor.

4 A The number of bits inside the processor is a
5 very internal sort of thing. You could have -- you might
6 imagine a situation where you wanted 16 bits on the bottom of
7 those matrices, in which case you'd put some sort of hardware
8 out there which would operate in conjunction with the pro-
9 cessor to read those bits in.

10 A In a 6800, for instance, there is no direct
11 input that you read into it at all. So that I don't know --
12 I don't really feel that the number of returns off one of
13 these things is closely associated with the number of bits
14 in the processor any more than the speed of the processor is
15 associated with the cycle time of the processor.

16 Q All right. But in any event, in the converted Boomerang
17 you were able to read input switches into the processor all
18 in a given column strobe time.

19 A That's right.

20 Q All right. Do you recall, Mr. Englehardt, the duration
21 of a column strobe?

22 A It was on the order of a hundred or 200 microseconds.

23 Q All right. So that would be approximately 5 to 10
24 times then shorter than a one-millisecond strobe?

1 A Yes.

2 Q And that would mean you could cycle through the whole
3 matrix several times faster than if the column strobes were
4 one-millisecond in duration?

5 A Well, I'm reluctant to say yes to that question,
6 frankly.

7 Q Okay. Now, by the --

8 A The question is not consistent, is the reason I'm
9 reluctant to answer.

10 Q Okay.

11 A Okay.

12 Q By the May 2nd demonstration of the converted Flicker,
13 you had your basic design work for the Bally controller
14 finished. Isn't that correct?

15 A No, I wouldn't say that's right.

16 Q Do you recall filing a patent application on the con-
17 verted Flicker game -- I'm sorry -- the converted Boomerang
18 game?

19 MR. TONE: I don't object to this question, but
20 I don't want my failure to object to constitute a waiver on
21 the patent matter we discussed last evening.

22 MR. HARDING: Your Honor, in connection with that,
23 this is to the point of whether or not he considered that he
24 had the design completed as of that time.

25 THE COURT: Yes.

1 BY THE WITNESS:

2 A Well, whether or not the design was complete, I guess
3 is how it functioned and how we defined that.

4 The game functioned as a pinball game, and
5 it played as a pinball game.

6 There would be some question in my mind
7 about whether or not -- let's put it this way: I know that
8 there was additional work done on it after that. So, how do
9 I decide how to answer your question as to when it was
10 finished? *That's the basic design?*

11 Q If it was the basic design or not?

12 A Well, yes, that's -- yes, right. How do I decide
13 what's the basic design.

T5 14 A "Don't know about now."

15 Q What is your position?

16 A Well, you say that it's

17 a very good. As far as I am

18 a document is what it says,

19 I don't know what it was as --

20 to be something when you write

21 it up to and I am having some

22 I don't know what you have in

23 anything was done as of my

24 *original* as of my

25 *present*.

Englehardt - cross

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1 Q Mr. Englehardt, let me show you a copy of United States
2 patent 4,198,051, which has been marked as Defendants' Ex-
3 hibit 12-B, and I believe, your Honor, you have a copy of
4 that already.

5 THE COURT: Yes.

6 MR. HARDING: That is the Bracha patent.

7 BY MR. HARDING:

8 Q Mr. Englehardt, is this the patent resulting from the
9 application you filed on the converted Boomerang game?

10 A Yes, sir, it looks like it.

11 Q It accurately describes the Boomerang game or at least
12 the basic design of the converted Boomerang game by the May
13 2nd demonstration, doesn't it?

14 A I don't know about the "by the May 2nd" part.

15 Q What is your hesitancy?

16 A Well, you say that it accurately describes something as
17 of May 2nd. As far as I am concerned, what I remember about
18 this document is that it describes the game that we developed.
19 I don't know that it was as of May 2nd or not, and that seems
20 to be something which you wish to attribute a lot of signifi-
21 cance to and I am having some difficulty doing that because
22 I don't know what you have in your mind when you say that
23 something was done as of May 2nd.

24 "Something" is general as a term, such as the basic
25 design.

1 Q You would agree, however, that the Exhibit 12-B does
2 describe the converted Boomerang game?

3 A Without looking at this further, I would be reluctant
4 to even say that, frankly. I am not certain that it is
5 Boomerang or that it is one of the following games.

6 Q Would you refer then, please, to the column 2, line 27
7 of Exhibit 12-B.

8 A Column 2, what page?

9 Q It is column 2, line 27.

10 THE COURT: It is in the printed portion of it.

11 THE WITNESS: Is that on the first page or is it
12 many pages later?

13 THE COURT: No, no, many pages later.

14 BY MR. HARDING:

15 Q Many pages in, column 2.

16 A Oh, I see, all right.

17 Now, did you say column 2, line what?

18 Q Lines 26 through 28.

19 A Okay.

20 Q I will just read that.

21 "The machine illustrated in Figure 1 has the
22 Boomerang playfield manufactured by the Bally Man-
23 ufacturing Corporation."

24 Isn't that correct?

25 A That is what it says, yes.

1 Q So the patent of Exhibit 12-B describes the converted
2 Boomerang game, isn't that correct?

3 A It says it has a Boomerang playfield on it, yes.

4 Q The converted Boomerang game had a switch debounce rou-
5 tine in it, did it not?

6 A Yes, it did.

7 Q That routine contemplated stuck switches and would con-
8 tinue to play in the presence of stuck switches?

9 A Yes, that is correct.

10 Q The Boomerang game sensed its switches after the pro-
11 cessor had already set up and turned on the lamps?

12 A Yes, that is correct.

fols

13 Q Now, do you have any other questions for me?

14 A No, I don't have any more questions.

15 Q Okay. Thank you.

16 A You're welcome.

17 Q Okay. Well, thank you very much. This was
18 submitted by Bally and I think it's the commercial game.
19

20 Q Okay. Well, I think it's the Bally game since it's mentioned in the last page
21 and you have that whole section on the electronic components and the
22 electronic components and the logic and the word and
23 the commercially commercial game, so I think it's Bally.

24 Q Okay.

25 Q Okay. Well, I think it's the Bally game because it's the
26 commercially commercial game, so I think it's Bally.

orrect 1

Q The Bally Boomerang Game had a coin interlock feature on it whereby the processor would not allow the insertions of coins into the machine if a limit of credits had already been reached?

A Yes, that is right.

Q I would like to refer you to the chart right in front of you. It is marked Defendants' Exhibit 19-F.

The Bally design employed grounding in the back cabinet, did it not?

A Now when you refer to that, what point of the design are you talking about?

Q I am not sure --

A Well --

Q Well, let me ask you.

A -- designs are moving things.

Q All right, let me ask you did the design that was commercialized by Bally and placed in its commercial pinball machines employ grounding in the cabinet?

A Yes.

Q Didn't the Bally game also have shielding in the back box?

A Would you state that whole question?

Q The electronic components in the back box were shielded in the Bally commercial game, isn't that correct?

A Yes.

Q The Bally commercial game used RC decoupling networks

1 On the input switch lines, isn't that correct?

2 A Yes.

3 Q Lastly, as indicated on Figure 19-F, the Bally commercial
4 game used line filters on the power line, isn't that correct?

5 A Yes.

6 Q By the end of 1976 you had never seen the electronic
7 Flicker game, had you?

8 A That is correct.

9 Q So you didn't know whether or not the converted Flicker
10 game employed grounding in the back cabinet?

11 A That is right.

12 Q You didn't know whether there was shielding used in the
13 back box in the electronic Flicker game?

14 A That is right.

15 Q You didn't know whether the electronic Flicker game used
16 RC decoupling networks on the input switch lines?

17 A That is right.

18 Q You didn't know whether or not the electronic Flicker
19 game employed a power line filter?

20 A That is right.

21 Q The commercial Bally game also used a zero crossing
22 energization circuit, did it not, for energizing the lamps?

23 A Yes.

24 Q That was to provide a soft start so that the lamps would
25 last longer or burn out less frequently?

Englehardt - cross

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1 A. Well, it was for the actant to implement that whole
2 scheme, which was meant to reduce noise and to be an economical
3 method of lighting the lamps.

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I think you have

the right idea, but I don't know if it's the best idea.

The problem is that the system is not designed to do that.

It's designed to do what it's designed to do, which is to

light up the interior of the building, not to reduce noise.

So, I think

you have to change the design.

I think

you have to take a look at the system and see if there's a way

to implement your idea without changing the basic

design.

I think it's probably better to do something like what you're suggesting, which is to

have a separate system for noise reduction.

I think it's probably better to do something like what you're suggesting, which is to

have a separate system for noise reduction.

I think

you have to change the design.

I think it's probably better to do something like what you're suggesting, which is to

have a separate system for noise reduction.

I think

you have to change the design.

I think

you have to change the design.

b1b2
Englehardt - cross

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1 Q All right, and you did not know whether or not the
2 electronic Flicker employed a circuit for zero crossing
3 energization of lamps?

4 A That is right.

5 Q Now, prior to May 2nd, Mr. Englehardt, May 2nd, 1975,
6 were you on a board within Bally Manufacturing Corporation
7 to evaluate whether Bally should use your design as the Bally
8 commercial design or whether it should adopt the Nutting
9 design in Milwaukee?

10 A No.

11 Q You were not on such a board?

12 A No.

13 Q Let me refer you to a two-page document, which has been
14 marked Defendants' Exhibit 4-0.

15 It is entitled "Bally Evaluation Team
16 Meeting Held February 13th, 1975."

17 I believe your Honor has Defendants' Exhibit
18 4 close at hand.

19 (Brief interruption.)

20 MR. HARDING: Let me find another copy.

21 THE COURT: No, I am sure I can find it. It is
22 what?

23 MR. LYNCH: 4-0, your Honor.

24 MR. HARDING: 4-0.

25 THE COURT: I am sure I have got it.

2 Englehardt - cross
1

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2 (Brief interruption.)
3

4 THE COURT: All right.
5

6 BY MR. HARDING:
7

8 Q Mr. Englehardt, have you ever seen Defendants' Exhibit
9 4-0 before?
10

11 A I really do not remember it although I see my name down
12 at the bottom of it.
13

14 Q Well, let me direct your attention to the bottom part
15 of that document under the heading, "The Electronic Flipper,"
16 where it reads:

17 "On or about March 22nd, this will be ready
18 in almost complete form. At that time it will be
19 reviewed by a composite board. They will then
20 meet after examining one project and reach a
21 decision as to our proper direction. Some options
22 are:

23 "1. Adopt our prototype and method.
24

25 "2. Recommend the Milwaukee unit approach,
or;

"3. Recommend a new approach and new development project.

"This board will consist of the following persons: J. Britz, chairman, F. Bracha, W. Englehardt, I. Telnaes, J. Frederiksen, G. Blahuta, N. Clark, D. Conroy," and two handwritten names at

Englehardt - cross

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1 the bottom.

2 It looks like D. Frye, and B. Nutting.

3 A Yes.

4 Q Does that refresh your recollection, Mr. Englehardt,
5 as to whether you were on a board or committee to evaluate the
6 Bally electronic flipper?

7 A No.

8 Q All right, let me refer you to Plaintiff's Exhibit 4-R,
9 which is a memorandum from Joe Robbins dated April 7th, 1975,
10 to, quote, "All Members of the Bally Electronic Flipper
11 Review Team," end quote.12 First let me ask you: Who is Joe Robbins
13 to your recollection?

14 A I was not sure of his role at Bally.

15 Q At the very bottom of Defendants' Exhibit 4-R, there is
16 a carbon copy list of several names, and you see your name is
17 third from the top?

18 A Yes.

19 Q Now, this memo says:

20 "To all members of the Bally Electronic
21 flipper review team."

22 The fourth paragraph down, it says:

23 "The Bally concept will be reviewed. A
24 meeting chaired by Mr. Britz will then take place.
25 A general review and discussion will be held in

Englehardt - cross

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1 A As far as depth with respect to the Bally approach, the
 2 Bally approach and other avenues of approach."
 3 F Now, does that refresh your recollection as
 4 to whether or not you were on a review team at Bally?
 5 A No, it does not.

T7

6 "Accident," said the State, "but there was no
 7 the "normal condition." Do you see what I mean?
 8 A No.

9 Q In this accident, if I understand correctly, you
 10 would not go the Bally approach?

11 Q Does this mean that you did not have a recollection as
 12 to whether or not you were on a Bally review team to review
 13 the Bally approach without consideration for injuries?
 14 A That is true, but...

15 Q Do you recall having then discussions with or with respect to
 16 A Bally's September 4th. I couldn't remember the exact date
 17 of 4th.

18 I reproduce the second and third pages of notes
 19 that I generated, but I generated an awful lot of notes that
 20 looked exactly like this, so it may not appear meaningful
 21 to me.

22 Q All right. Do you recall then attending a meeting on
 23 or around May 2, 1965, to decide whether the Bally
 24 Englehardt Analysis for a vice president panel would be
 25 selected by Bally, or whether the Bally analysis

1 Q All right. One last document. Let me refer you to
2 Defendants' Exhibit 4-T, which is a departmental corres-
3 pondence memorandum from John Britz to Joe Robbins, "Subject:
4 Electronic Flipper meeting held May 2, 1975."

5 The date of the memo is May 9, 1975, and it says:
6 "Attendees," and it lists your name four down in
7 the second column. Do you see that?

8 A Mm-hmm.

9 Q In this memo Point 1 states: "It was decided that we
10 would not go the Nutting way."

11 Does this memorandum reflect your recollection as
12 to whether or not you were on a Bally review team to review
13 the Bally microprocessor controller for pinball?

14 A No, it does not.

15 Q Do you recall having seen documents 4-R or 4-T before?

16 A I don't remember 4-R. I don't remember the front page
17 of 4-T.

18 I recognize the second and third page as things
19 that I generated, but I generated an awful lot of things that
20 looked exactly like this, so it has no specific meaning
21 to me.

22 Q All right. Do you recall then attending a meeting on
23 or around May 2, 1975, to decide whether the Bracha-
24 Englehardt design for a microprocessor pinball would be
25 selected by Bally, or whether the Nutting design would be

1 selected?

2 A No, not a meeting with that purpose.

3 Q Well, regardless of the purpose, did a meeting of that
4 nature happen in May of 1975?

5 A No. I don't remember it.

6 Q Well, do you remember any participation in 1975 of a
7 review on whether or not the computer design that you were
8 developing was the preferred way for Bally to go into the
9 microprocessor controlled pinball business?

10 A No.

11 Q All right. Now yesterday, Mr. Englehardt, you re-
12 ferred to Plaintiff's Exhibit 430, which is the "Bally elec-
13 tronic pinball game, theory of operation," brochure, correct?

14 A Yes.

15 Q You indicated you were familiar with that exhibit?

16 A Yes.

17 Q Just a couple of quick questions.

18 Q MR. HARDING: Your Honor, do you have Plaintiff's
19 Exhibit 430?

20 THE COURT: Which one is that, again?

21 MR. LYNCH: Here's another copy, your Honor. It's
22 Bally's theory of operation.

23 BY MR. HARDING:

24 Q The manual indicates that the Bally commercial controller
25 for pinball employed some self-test features, including the

1 MPU module self-test on power-up, as indicated on page 2.

2 Is that correct?

3 A Yes.

4 Q And it also included a test routine as indicated on
5 page 10 on self-diagnosis of problems. Is that correct?

6 A Yes.

7 Q And those were features to catch any errors so that the
8 game would operate correctly after it was turned on?

9 A No.

10 Q Well, they were tests in an attempt to discover any
11 errors that may be in the game before it was used by -- used
12 in the amusement center?

13 A How do you want me to respond? I'm not sure what the
14 question is.

15 Q All right. Let me just ask the bottom question: Those
16 were features of the game?

17 A Yes.

18 Q Why were they features of the game?

19 A I thought they were necessary to make it a viable com-
20 mercial product.

21 Q Okay. The Bally commercial design employed low current
22 playfield switch contacts. Isn't that correct?

23 A Yes.

24 Q And because of that, they were gold-plated, the con-
25 tacts?

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1 A Yes. Didn't have any kind of connection to play the
2 Q And was that a feature of the Bally system also?

3 A Well, what is the question, then -- what is the question?

4 Q Did you consider it a feature of the Bally system to
5 employ low current playfield switch contacts?

6 A Yes, relative to high current electro-mechanical con-
7 tacts. I don't know, that is right.

8 Q Okay. And the Bally system employed DC solenoids. Is
9 that correct?

10 A Yes. No understanding of whether or not the current

11 Q And those are the solenoids that drive the pot bumpers
12 and the slingshots, for example, in pinball games?

13 A Yes. I don't know if I got it right.

14 Q And was that a feature of the Bally system, DC solen-
15 oids, as opposed to AC solenoids?

16 A I don't think I'd call it a feature.

17 "Have you ever had any understanding of whether
18 the solid state flipper game is a playfield system
19 in a matrix?"

20 Mr. Nease, your lawyer said it's correct, at the
21 deposition?

22 A Yes.

23 Q I apologize. That is something he once had some understanding
24 of, and you know this, right? Is that correct?

25 A I don't know what I answered.

1 Q You didn't have any knowledge of whether or not the
2 electronic Flicker employed the self-test features of the
3 Bally system, correct?

4 A That is correct.

5 Q You didn't have any knowledge of whether the electronic
6 Flicker employed low current playfield switch contacts?

7 A I didn't know, that is right.

8 Q Mr. Englehardt, by the time you completed the Bally
9 design for microprocessor controlled pinball, you did not
10 even have an understanding of whether or not the electronic
11 Flicker game employed its playfield switches in a matrix,
12 did you? ~~and says the concept of a solid state~~

13 A ~~so~~ I don't know if I did or not.

14 Q Let me refer you to page 386 of your deposition, taken
15 May 7, 1980, and you can read the page, beginning midway
16 down:

17 Q ~~So~~ "Have you ever had any understanding of whether
18 the solid state Flicker game had playfield switches
19 in a matrix?"

20 Q ~~So~~ Mr. Welsh, your lawyer -- is that correct, at that
21 deposition?

22 A Yes.

23 Q Indicated, "That is whether he ever had any understand-
24 ing," and you answered, "No," is that correct?

25 A That is obviously what I answered.

1 MR. HARDING: No further questions, your Honor.

2 MR. TONE: Is it possible to have a brief recess,
3 your Honor?

4 THE COURT: All right, take five minutes.

5 (Brief recess)

6 REDIRECT EXAMINATION

7 BY MR. TONE:

8 Q Mr. Englehardt, the memoranda Mr. Harding showed you,
9 marked Defendants' Exhibits 4-O, 4-R, and I think 4-T, re-
10 ferred to, among other things, the progress of the Boomerang
11 conversion.

12 A 4-O says the converted Boomerang will be ready in
13 March, or words to that effect. Was it ready in March?

14 A There was nothing very significant that happened that
15 I remember in March. The significant date that I can give
16 you is the May date.

17 Q The machine was ready to show to the management people
18 in May, is that right?

19 A That is right.

20 Q So apparently the March forecast was not realized, is
21 that right?

22 A Yes.

23 Q Then 4-O makes a similar forecast as to April. That
24 wasn't realized either?

25 A That is right.

1 Q After the showing in May, did you and the others who
2 were on the development group or team continue to work on
3 the converted Boomerang?

4 A Yes.

5 Q What kind of work in particular did you do after May?

6 A We were doing a lot of debugging, a lot of noise work.

7 Q How long did that continue, just approximately?

8 A That whole process lasted until really almost December
9 of '75 there, when we started shipping the Bow and Arrows.

10 Q The Bow and Arrow was the converted machine that was
11 put out on location for testing?

12 A Field testing, that is right.

13 MR. TONE: Very well. No further questions, your
14 Honor.

15 MR. GOLDENBERG: None.

16 MR. HARDING: Defendants have no questions, your
17 Honor.

18 MR. TONE: Our next witness, your Honor, is Daniel
19 Conroy.

20 THE COURT: I would like to ask a question of Mr.
21 Englehardt.

22 THE WITNESS: Sure.

23 THE COURT: How long did you study the pinball
24 machine before you started your design work?
25 Or maybe that is a wrong question. I suppose the

1 study was part of your design work, but I mean how long did
2 it take you to become familiar enough with the requirements
3 of a pinball game to be able to --

4 THE WITNESS: It is really hard to say.

5 THE COURT: -- start applying your --

6 THE WITNESS: It is really hard for me to tell
7 you because it is something that kind of comes all the way
8 down the line. You think you are familiar with the basics,
9 and then you learn, "Hey, I don't know about this," and so
10 you look for somebody to give you advice about that.

11 So it is a sort of distributed process. It is hard
12 to give you a date.

13 project will be ready to market in
14 several years.

15 THE WITNESS: Yes.

16 THE COURT: You do not know what the market
17 looks like.

18 THE WITNESS: Yes.

19 THE COURT: -- before the market is developed?
20 THE WITNESS: Yes.

21 THE COURT: Was there any reason why you
22 thought that you would not have been familiar with the
23 basic circuit logic and components at that time?

24 THE WITNESS: Not necessarily. I had been involved
25 in the development of logic designs for quite some time and

1 THE COURT: When you applied your knowledge of
2 electronics to the pinball game, was there anything about the
3 results that you achieved that was surprising to you, or, on
4 the other hand, did the result you achieved amount to what
5 you would have expected from the application of the tech-
6 nology that you were using?

7 THE WITNESS: I was very surprised. Well, I was
8 surprised at how well received it was, if that is the answer
9 to your question.

10 THE COURT: I do not mean received in the trade.

11 THE WITNESS: Yes.

12 THE COURT: What I mean is this. You came to this
13 project with an extensive background in electronics and
14 digital logic.

15 THE WITNESS: Yes.

16 THE COURT: You applied that knowledge to a new
17 area; --

18 THE WITNESS: Yes.

19 THE COURT: -- namely, the area of pinball.

20 THE WITNESS: Yes.

21 THE COURT: Was there anything that produced a
22 result that you would not have expected from what you knew
23 about digital logic and computers and electronics?

24 THE WITNESS: That produced a result that I would
25 not have expected -- I do not know exactly how to answer

Englehardt -

1 that. I am really not sure what we are driving at with that
2 other than the fact that --

3 THE COURT: I am not sure I am either that sure.

4 THE WITNESS: Yes.

5 THE COURT: You knew that you wanted to accomplish
6 certain goals in your design.

7 THE WITNESS: Right.

8 THE COURT: In order to accomplish those goals, you
9 selected certain hardware and certain software and certain
10 combinations and techniques.

11 THE WITNESS: Yes.

12 THE COURT: Did those hardware/software selections
13 perform as you anticipated they would?

14 THE WITNESS: I was particularly pleased at how
15 well they performed.

16 THE COURT: The general subject to which my ques-
17 tions are addressed is whether or not there was anything par-
18 ticularly remarkable about the Boomerang game once it had
19 been produced.

20 Now, I know a lot of hard work went into it and
21 a lot of thought went into it and a lot of very high skill
22 went into the design of it, but I think one assumes the
23 presence of those elements when you talk about designing a
24 complicated thing of this kind.

25 Can you tell me anything that sort of came

1 out of the blue to you in this process?

2 THE WITNESS: I think that there was a combination
3 of an awful lot of things that I thought that were well
4 selected to provide an overall combination, and I think that
5 they had to have been well selected to provide a finalized
6 viable kind of product out there.

7 I thought at the time that I was incorporating
8 them that these were particularly appropriately -- these were
9 particularly appropriate to do in this case, and there were
10 probably a large number of those things.

11 THE COURT: If there were another electronic
12 engineer who had the same desire you had to design a success-
13 ful electronic pinball game and he sat down and did whatever
14 was necessary to acquaint himself with the demands of a pin-
15 ball game, would he have done anything any different than you
16 did, this hypothetical expert?

17 THE WITNESS: Well, frankly, without being ego-
18 tistical about it, I like to think that I brought a lot of
19 factors to bear on the design that at least a lot of the
20 engineers that I knew at that time would not have brought to
21 bear on the design.

22 THE COURT: That is what I would like to know.

23 THE WITNESS: And I think that many of those
24 factors contributed to the overall success of the thing.

25 Do you want me to enumerate some of those

Englehardt -

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1 things?

2 THE COURT: Yes, if you would.

3 THE WITNESS: For instance, just the self-test
4 features that were out there. I am not sure that the average
5 engineer would have brought those out.6 I think, however, that they were very
7 necessary.8 I am not sure that the average engineer would
9 have, in my opinion, as effectively in a way as we did solve
10 some of the noise problems that the machine had.11 I think that it was particularly insensitive
12 to noise, and it was -- I know that at least in comparison
13 to some other products, it was particularly -- it radiated
14 particularly less noise.15 The fact that it did those things came from
16 a combination of a lot of different factors that we had in-
17 corporated into the design.18 I like to think that I was familiar with some
19 of those factors by virtue of a special circumstance of
20 experience, if you will, so that there were hardware tech-
21 niques in there that addressed that problem. There were soft-
22 ware techniques in there that addressed that problem.

23

24

25

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1 THE COURT: What was your particular experience
2 that had acquainted you with these noise prevention tech-
3 niques?

4 THE WITNESS: Well, particularly when I worked on
5 this military equipment, the military had a requirement that
6 you had to test this equipment to meet certain specifica-
7 tions.

I had been project manager on several jobs prior to that where it was really my responsibility to make sure that the equipment did meet those requirements.

11 In addition to that, I was acting as a design en-
12 gineer on those jobs, and they were digital electronic type
13 jobs. designs.

14 to do this. That means that because they were high-speed digital circuits, there was a lot of noise generated in them.

16 So I think that I was acutely aware of the problems,
17 and to a certain extent uniquely -- not the only person in
18 the world, but to a certain extent. I was particularly
19 aware of what had to be done to circumvent those things.

24 THE WITNESS: Well, that's hard to say.

25 THE COURT: I suppose there are some engineers

1 who might deal with things that don't have much to do with
2 noise. Would that be true?

3 THE WITNESS: That's very true. I think it's a
4 small number percentagewise of engineers that were in the
5 category that I was in relative to noise, and then it's
6 another small percentage of engineers that were in the
7 category that I was relative to having some knowledge of
8 computer style, circuitry and design.

9 THE COURT: Would you say that sophistication with
10 noise problems is a necessary part of the background of any-
11 one who's going to be a successful electronic pinball de-
12 signer?

13 THE WITNESS: Yes, if he's going to just set out
14 to design a machine, I think that he better be very familiar
15 with it, because to achieve a viable product -- it's a dif-
16 ferent problem in there.

17 As a matter -- well, --

18 THE COURT: Go ahead.

19 THE WITNESS: Well, I remember going to seminars
20 when they would tell us that the solution to electrostatic
21 noise in those days was to wrap the thing up in a metal box.
22 And I didn't feel that that was really a viable appropriate
23 solution.

24 THE COURT: Are you now familiar with how the
25 Flicker machine deals with the noise problems?

1 THE WITNESS: No, I'm not.

2 THE COURT: All right. I've asked Mr. Englehardt
3 some questions that are very important as far as I'm con-
4 cerned. If anyone wants to develop it or ask any further
5 questions, go ahead.

6 MR. TONE: We have no further questions, your Honor.

7 MR. HARDING: Defendants have no questions, your
8 Honor.

9 THE COURT: All right, thank you.

10 MR. TONE: Your Honor, I have one I just thought
11 of, if I may be permitted to change my mind.

12 THE COURT: Yes.

13 BY MR. TONE: Your Honor.

14 Q Would you say, Mr. Englehardt, that you were --

15 MR. TONE: No, I've changed my mind. I'm going to
16 stop right there and withdraw the question.

17 THE COURT: All right. That doesn't open up too
18 much cross examination.

19 MR. TONE: I just happened to think, we'll be
20 here until 12:30 if I ask that question.

21 THE COURT: All right. Thank you, Mr. Englehardt.

22 THE WITNESS: Thank you.

23 (Witness excused.)

1
2
3 DANIEL F. CONROY,

4 called as a witness by the plaintiff and having been first
5 duly sworn, was examined and testified as follows:

6 DIRECT EXAMINATION

7 BY MR. TONE:

8 Q Will you state your name, sir?

9 A Daniel F. Conroy.

10 Q And spell Conroy.

11 A C-o-n-r-o-y.

12 Q Where do you live, Mr. Conroy?

13 A I live in Boulder, Colorado.

14 A Give us your address there.

15 A 62 Wild Horse Circle.

16 Q What is your occupation?

17 A I'm a consultant, and I also work in solar engineering.

18 Q Did you come here to testify in this case at the
request of counsel for Bally Manufacturing?

19 A Yes.

20 Q Were you formerly employed by Bally Manufacturing?

21 A Yes, I was.

22 Q When?

23 A 1971 to 1976.

24 Q What was your position when you were first employed?

25 A I was assistant plant manager at that time.

1 Q. And did your duties and title change?

2 A. Yes. About two years later I became director of systems
3 and planning.

4 Q. What were your responsibilities in that position?

5 A. The idea was to organize many of the departments in
6 Bally to somehow integrate the rapid growth that we had
7 already had and to facilitate the expansive growth that we
8 saw coming.

9 Q. So what I did was go into various areas, cost
10 accounting, engineering, manufacturing, and work in those
11 areas.

12 Q. In the course of performing those duties did you become
13 familiar with the construction and operation of electromechan-
14 ical pinball games manufactured by Bally?

15 A. Yes.

16 Q. And did you have supervision over the manufacturing and
17 testing of those machines?

18 A. Yes, to a degree. You know, insofar as I would work on
19 various lines and work with the plant manager, I had
20 responsibilities in that area.

21 Q. Were you ever personally involved in testing or any work
22 done on Bally manufactured pinball games?

23 A. Well, I used to -- the way I learned about Bally is, I
24 went in every area and did the work. So I tested the games
25 and I would put things together and learn how everything

10,3,4

Conroy - direct

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1 operated.

2 Q Referring now to the period prior to September 1974,
3 do you know of any computer controlled pinball project at
4 Bally?

5 A At Bally, no.

6 Q Prior to September 1974?

7 A No.

8 Q Did you hire Mr. Bracha?

9 A Yes, I did.

10 Q And for what assignment did you hire him?

11 A Well, I hired Frank for the engineering department. That
12 was one of the departments that we needed to integrate in
13 what I had previously stated, and Frank was hired as sort of
14 the conduit there between myself and the engineering depart-
15 ment, to get that better organized.

16 A Frank Bracha. Frank was a computer engineer for us.

17 Q Is that Frank Bracha?

18 A It's Frank Bracha.

19 Q Frank said Bracha is his middle name.
20 Is it.

21 Q Calling your company Computer Inc., did you have
22 any a computer controlled pinball machine during that
23 point that year?

24 Q Yes, we did have one.

25 Q The was probably at the manufacturing plant.

Conroy - direct

1 Q Let me interject one question of a different nature at
2 this point.

3 I don't know. At the time you were employed by Bally,
4 Mr. Conroy, were you related by marriage to the chief execu-
5 tive officer of Bally, Mr. William O'Donnell?

6 A Yes, he was my father-in-law.

7 Q Are you still related by marriage to Mr. O'Donnell?

8 A No.

9 Q Was there an electronic game project going on at Bally
10 in the year 1974 prior to September?

11 A A flipper game are you talking about?

12 Q No, an electronic, any kind of an electronic game.

13 A There was an electronic slot machine that was being
14 worked on.

15 Q Who was working on that?

16 A Inge Telnaes. Frank was doing some work on it.

17 Q Is that Frank Bracha?

18 A Frank Bracha.

19 I think Bill Englehardt was doing some work
20 on it.

21 Q Calling your attention to September 26, 1974, did you
22 see a computer controlled pinball game demonstrated on or
23 about that date?

24 A Yes, up in Milwaukee.

25 Q Who was present at the demonstration?

Conroy - direct

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1 A Frank Bracha, Inge Telnaes, John Britz, and myself
2 drove up from Chicago, and then I recall Mr. Frederiksen --
3 I don't recall his first name -- and Dave Nutting were both
4 present.

5 Q Tell us what happened when you -- when did you arrive,
6 in the morning sometime?

7 A Yes, I think we left probably around early morning,
8 9:30 or so, and must have gotten up there, I don't know,
9 11:00 o'clock, I assume.

10 Q What happened when you got there?

11 A I vaguely remember walking down some stairs. I am not
12 sure if that is exactly the case, but there was this room
13 and the solid state flipper was open and there was nothing
14 in it, I mean, comparatively speaking. I was shocked.

15 To the right of it I believe there was an
16 electromechanical, which I was familiar with, and I couldn't
17 believe that there wasn't anything in there and that it was
18 going to work. I was just totally -- it seemed like an empty
19 box, almost, other than a couple of PC boards.

20 Q After observing the two machines, what happened then?

21 A Then we closed it up and played it.

22 Q That is, you played the computer controlled game?

23 A Right.

24 Q How did it play?

25 A It played well. I thought it was a little faster than

Conroy - direct

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1 the other one. I remember the ball motion seemed to be a
2 little quicker coming off the thumper-bumpers and things.

3 It may have been my imagination, but it just
4 seemed to be a little quicker, move around a little faster.

5 Q How long did you play the game?

6 A I probably played it for 10 or 15 minutes.

7 Q In total how long did the four of you play it?

8 A I would say probably about 45 minutes to an hour we
9 fooled around with it.

10 Q During the playing of the game, did Mr. Frederiksen
11 provide any explanation of the game and how it worked?

12 A Yes. I am not a real --

13 MR. LYNCH: Objection, your Honor. This is
14 hearsay, objection.

15 MR. TONE: It is not offered for the purpose of
16 proving how the game worked but merely for the purpose of
17 proving the fact that the game was shown and explained.

18 MR. LYNCH: Then you can just ask him if it was
19 explained and now how he explained it, your Honor.

20 MR. TONE: I don't think I did ask him how he
21 explained it, and I doubt he could tell us, Mr. Lynch.

22 THE COURT: No, I think what Frederiksen said is
23 important for the fact that he said it, whether it is true
24 or not.

25 MR. LYNCH: Your Honor, his state of mind has no

Conroy - direct

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1 relevance unless his state of mind was to represent the facts.
2 This is not a surprise --

3 THE COURT: But one way to prove that would be by
4 all of the evidence in this case, including any circumstan-
5 tial evidence. So I will accept what Frederiksen or anybody
6 else at this meeting said not for the truth of it but for the
7 fact that it was said because the fact that it was said is a
8 circumstance which I think is relevant to the issues.

9 BY MR. TONE: Very well.

10 BY MR. TONE:

11 Q Let me reframe the question, Mr. Conroy.

12 During the time you were playing the game and
13 thereafter, did Mr. Frederiksen make statements or comments?

14 A Well, he answered some of our questions.

15 Q To what did those questions relate? What was the
16 substance of those questions?

17 A I remember one of mine was the lights. They seemed a
18 little dim. I was worried about that; you know, they didn't
19 seem as bright as they could be and it was a different type
20 of display than the electromechanical. So I did ask him a
21 question about that.

22 I am not a technical person, so I didn't
23 ask him a technical question. I just asked him if those
24 lights could be made brighter, and he said that they could.

Conroy - direct

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1 Q Did any of the other members of your party ask
2 Frederiksen questions?

3 THE COURT: Now, that, for instance, is not being
4 received to prove that they could be made brighter.

5 MR. TONE: Right.

6 BY MR. TONE:

7 Q Did anyone else in your party ask questions of
8 Frederiksen?

9 A Yes, I know Frank and Inge did, and I am sure John did,
10 but I don't remember the questions.

11 Q Do you remember the nature of the questions Mr. Bracha
12 and Mr. Telnaes asked?

13 A Well, they were technical questions.

14 Q Apart from questions that were asked, did Mr. Frederiksen
15 volunteer any statements about the machine?

16 A I don't recall.

17 Q Do you remember anything else that was said or the
18 substance of anything else that was said by Mr. Frederiksen
19 during the demonstration?

20 A Well, the particular substance, no. I just remember
21 that when Frank and Inge -- what I looked for was to see
22 whether somebody knew what they were talking about, and when
23 Frank and Inge asked him questions, he answered them rapidly.
24 He just didn't seem to have a problem with the questions they
25 were throwing at him, and that is what we were concerned about.

Conroy - direct

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1 was to see what the real hangups were with this sort of
2 machine.

3 It didn't appear that Frederiksen had any, at least
4 with the questions that had been asked while I was there.

5 Q. Did you form a conclusion about how the computer
6 controlled game worked?

7 A. Yes, I still had a question on the sound. It obviously
8 didn't sound the same as electromechanical, but my conclusion
9 was that it worked and I was really excited about it.

10 I just, you know, was really ecstatic that we could
11 do something like this because of the labor intensity of
12 electromechanical.

13 Q. Did there come a time when Mr. Frederiksen and the two
14 technical men from Bally had a separate conversation?

15 A. Seems to me, as I recall the events, that Dave Nutting
16 and John Britz and I went to lunch to talk numbers, and if I
17 am recalling correctly, it seems that Inge and Frank stayed
18 back and talked to Frederiksen.

19 Q. How long did you remain in Milwaukee meeting with Conroy
20 and Frederiksen or either of them?

21 A. With Nutting? I have no idea.

22 Q. I am sorry, Nutting and Frederiksen or either of them.

23 A. We had lunch. Lunch was, you know, about an hour, hour
24 and a half, and then we came back and dropped Dave off and
25 then we left.

1 Q. Dave being Dave Nutting? to contact him.
2 A. Dave Nutting and picked up the engineers. So I would say
3 all told we were there about three hours.
4 Q. Did you make any observations -- was there a discussion
5 in the group of four after you left Mr. Nutting and Mr.
6 Frederiksen?

7 MR. LYNCH. Same objection, your Honor, hearsay.

8 MR. TONE: Again it is offered to prove the state
9 of mind of these people, which I think is relevant to the case.

10 MR. LYNCH: State of mind is an excited utterance
11 type of thing, your Honor. There is no relevance to state of
12 mind unless we assume that the statement is true and hence
13 truly reflects the state of mind.

14 THE COURT: Well, except that this witness, I think, can
15 testify to his state of mind based upon what he saw.

16 MR. LYNCH: Oh, absolutely, your Honor.

17 THE COURT: So part of the conversation will probably
18 be that.

19 MR. LYNCH: That part of it, what he said --

20 THE COURT: Let me take it, and I will see what it is and
21 I will rule after I have heard it.

22 BY MR. TONE:

23 Q. Did you make any statements to the group after you got
24 out of the presence of Mr. Frederiksen and Mr. Nutting?

25 A. Yes, I was really excited about the prospect of this.

1 and I said we definitely have to do something like this. It
2 was a real revelation. It really was.

3 Q. Did you state to the group what you thought should be
4 done about it?

5 A. At first my reaction was to hire Nutting and Frederiksen
6 and get going with it. So that was my initial -- you know,
7 that was my initial response, that we had to get going fast.

Conroy - direct

1 Q By the way, when you were playing the game and the
2 others were playing the game at Dave Nutting Associates, did
3 all of the operations of the game perform correctly and all
4 the playfield features do what they were supposed to do, as
5 far as you could tell?

6 A Yes. I do not recall any problem with the playfield.

7 Q You mentioned some lights.

8 A Did those lights relate to the score, or
9 were they playfield lights, the ones you asked the question
10 about? ~~about~~ ~~you asked shortly before~~

11 A Score.

12 Q Score.

13 A The back glass.

14 Q All right.

15 ~~Perhaps we better~~ When you arrived back in Chicago at the Bally
16 headquarters, did you go back to the Bally headquarters that
17 day? ~~immediately~~

18 A Yes.

19 Q Did you have a conversation with anyone that day?

20 A Yes. I ran into Bill's office.

21 Q Bill being?

22 A Bill O'Donnell.

23 Q That is Bill O'Donnell, Sr.?

24 A Yes.

25 Q What did you say to him?

Conroy - direct

A I was really, you know, just saying, "You can't believe what we just saw." I said these things, you know, "It is quite unbelievable and that we should do something right away with this, with this game."

I said -- I remember my exact words. I said, "I have just met a kid who is a genius and really knows what he is doing."

Q To whom were you referring when you said that?

A Frederiksen.

Q Were there shortly thereafter a series of meetings at Bally relating to the subject of a computer controlled pin-ball game?

A Yes. Well, even that day John came in, and we were kicking around what we had seen with Bill, and then the next morning we had a meeting. I do not recall exactly everyone who was there, but I know Frank was there, Frank Bracha and Inge Telnaes.

Q Was there a discussion about what action Bally should take, if any, with reference to what you had seen in Milwaukee?

A Well, Frank felt very strongly that we should do it ourselves.

Q Frank?

A Bracha.

Q When you say "Frank," you mean Frank Bracha?

3

Conroy - direct

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1 A Frank Bracha, yes.

2 Q Were contrary opinions expressed?

3 MR. LYNCH: Your Honor, I would just like to
4 record a hearsay objection for the truth of what is being
5 said.

6 THE COURT: Well, I am not receiving it for that.
7 Whether they should do it themselves is not something that is
8 an assertion of a proposition, I do not think, to whose
9 truth is relevant here.

10 MR. LYNCH: Your Honor, I just do not want the
11 hearsay to be waived any longer.

12 THE COURT: Right.

13 On this whole line of questioning that has to
14 do with the trip to Milwaukee, it seems to me that it is
15 admissible as a description of the reaction of these people
16 to what they saw in Milwaukee, and that reaction is a circum-
17 stance which bears upon the question of whether what they saw
18 there was capable of generating that kind of reaction of
19 reasonable people. It seems to me that that is not hearsay
20 but rather circumstantial evidence.

21 BY MR. TONE:

22 Q Do you have the question in mind, Mr. Conroy?

23 A Could you repeat it for me, please?

24 THE COURT: It was the question of a conversation
25 about whether you were going to go over your own project or

Conroy - direct

1 not.

2 MR. TONE: That is right. The witness has testi-
3 fied that Mr. Bracha felt that Bally should initiate a
4 project of its own.

5 BY MR. TONE:

6 Q My question was whether there were others at the
7 meeting who held a different view.

8 A My view is a little different than that.

9 A And more, I did not feel that it should be solely
10 Frank's although I felt -- Frank Bracha's -- although I felt
11 an allegiance to him since I had hired him and he had done a
12 really good job so far.

13 But I felt in order to get this thing done
14 more rapidly, we should incorporate Mr. Frederiksen and
15 Mr. Nutting into the Bally network and get moving on it,
16 working with Frank.

17 A I don't recall the exact date.

18 I know we decided to do it ourselves and have Frank Bracha and
19 other people work on it at the same time.

20 Q And that work commenced in what
21 result?

22 A I don't recall.

23 Q Do you recall that action?
24 A I remember, there was an agreement to do it at the same time.

1 Q : Did the discussions continue over a period of time on
2 the subject of how to proceed with a computer-controlled
3 pin game, pinball game project?

4 A : Yes.

5 Q : Did there come a time when a group was designated to
6 evaluate and make a decision about that?

7 A : Yes. We had a committee that would meet and talk
8 about it.

9 Q : And were you on the committee?

10 A : Yes.

11 Q : And eventually, without going into detail, a decision
12 was made with respect to whether to use the Frederiksen-
13 Nutting design or whether to develop an in-house design. Is
14 that correct?

15 A : Right.

16 Q : And what was the decision and when was it made?

17 A : I don't recall the exact day. I know we decided to go ahead and get started our-
18 selves and have Frank Bracha and Bill Englehardt and some
19 other people work on it across the street.

21 Q : And their work commenced in October of 1974, do you
22 recall? Was in the field for testing?

23 A : I don't recall. It wasn't done at that point in time.

24 Q : Do you recall that after their work commenced, and as
25 it progressed, there was still consideration of -- whether

1 there was still consideration of the possibility of using
2 the Frederiksen-Nutting design?

3 A Those things never died. I mean, you know, Joe Robbins
4 or somebody else would be saying -- sort of keeping it alive.

5 But I don't remember -- I don't remember making a
6 definitive decision on that after that. I remember being
7 concerned about getting the game going.

8 Q I think this is clear, but did the work on the Bally
9 computer pinball project start after you had seen the dem-
10 onstration in Milwaukee?

11 A Yes.

12 Q Mr. Conroy, when did you leave the employ of Bally
13 Manufacturing Company?

14 A January of 1976.

15 Q And what was the status of the computer pinball project
16 at that time? (interruption)

17 A It was not ready for production yet, but it seemed to
18 be working with some little -- I think they called them
19 glitches, but I don't recall the exact words. They had, you
20 know, some small problems with it.

21 Q By that time had Bally begun placing machines, proto-
22 type machines in the field for testing?

23 A I don't remember it being done at that particular point.
24 in time.

25 Q Do you recall a machine called Bow and Arrow?

Conroy - direct

2477

1 A Yes.

2 Q Do you recall that anything relating to the computer
3 pinball project was done with respect to the Bow and Arrow?

4 A Could you repeat that? I'm not sure --

5 Q Do you remember that Bow and Arrow games were involved
6 in any way with any computer pinball project?

7 A I think it was the game that they were using, Englehardt
8 was using as the prototype. I mean, it was the one he was
9 working on over in the engineering room, but I can't be sure
10 of the name.

11 Q Do you recall any incident of field testing of machines
12 while you were still at Bally?

13 A No.

14 Q All right.

15 MR. TONE: Excuse me a moment, your Honor.

16 (Brief interruption)

17 MR. TONE: I have no further questions, your Honor.

18 THE COURT: What was the month that you left?

19 THE WITNESS: January, 1976.

20

21

22

23

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25

Conroy - cross

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CROSS EXAMINATION

2 BY MR. LYNCH:

3 Q Mr. Conroy, when you went to Milwaukee did you have a
4 discussion with Mr. Nutting about the progress or existence of
5 a microprocessor controlled pinball project at Bally?

6 A Well, when I went there I saw one.

7 Q Did you tell him that there was such a project going on
8 at Bally at the time?

9 A No, I didn't.

10 Q Did you indicate to him that, "Oh, well, we've been
11 working on such a project," when you went to Milwaukee?

12 A No, I didn't.

13 Q I'd like to show you what has been marked as Defendants'
14 Trial Exhibit 4-Q. It's dated March 27, 1975, commenting on a
15 letter from Dave Nutting to John Britz. But this memorandum
16 is from John Britz to you.

17 I'd like you to take a look at that, Mr. Conroy.

18 A (Witness reviewing document.)

19 Q Now, that exhibit seems to indicate that you and Mr.
20 Britz might have had a discussion with Mr. Nutting on the
21 occasion of the visit to Milwaukee.

22 A Yes, that's correct.

23 Q And at that discussion you informed him that Bally already
24 was doing some work on electronic or microprocessor controlled
25 pinball games.

1 MR. TONE: Excuse me, your Honor. May we have an opportunity for the witness to read the exhibit? I don't see any
2 reference to the September visit to Milwaukee in this memorandum.
3 In 1978, --
4

5 Am I overlooking something?

6 MR. LYNCH: I think the witness -- I can get this from
7 the witness, I think, Mr. Tone.

8 BY MR. LYNCH:

9 Q Isn't it the case that that letter referred to a meeting
10 that you and Mr. Britz had with Dave Nutting in his office in
11 Milwaukee? *I'd like to know what you mean by that*

12 THE COURT: What is the exhibit number?

13 A MR. LYNCH: 4-Q, I believe, your Honor, Defendants' 4-Q.

14 BY THE WITNESS:

15 A I would assume so. It's the only meeting I had with
16 Dave Nutting in his office.

17 BY MR. LYNCH:

18 Q And that document, 4-Q, is a document in which Mr.
19 Britz is calling to your attention the fact that both Mr.
20 Britz and yourself met with Dave Nutting in his office and
21 told him there was electronic pin work going on at Bally,
22 correct? *that's right*

23 A I did not tell him, no.

24 Q Well, that was mentioned to him in your presence, would
25 you agree? *to just mention*

1 A I don't recall.

2 Q You don't recall.

3 Let me show you -- there was an evaluation team at
4 Bally in 1974, was there not, Mr. Conroy?

5 A Yes.

6 Q That evaluation team evaluated new products of all types.

7 Is that correct?

8 A Yes, it is.

9 Q You were a member of that evaluation team, correct?

10 A Right.

11 Q Now, I'd like to show you a memorandum to, "All members
12 of the evaluation team" about a meeting held on Monday,
13 August 12, 1974 at Bally, marked as Exhibit 4-E.

14 A Do you recognize this document as a memorandum --

15 A Yes.

16 Q -- of that evaluation team's meetings? Correct?

17 A Yes.

18 Q I call your attention to Item, Roman numeral V. Do you
19 recognize what is referred to there by the words "electronic
20 flipper," Mr. Conroy?

21 A Yes.

22 Q Does that mean a microprocessor controlled pinball game?

23 A I'm not -- I wasn't familiar -- I'm not familiar with the
24 terms microprocessor and flipper game.

25 It just meant electronic flipper. I don't know the

1 details of what that means.

2 Q. In other words, substituting the electromechanical
3 components of a pinball game with electronic components of
4 some type.

5 A. Right.

6 Q. Now, it indicates there that various approaches to the
7 ultimate electronic game were analyzed. Correct?

8 A. Yes.

9 Q. It is fair to say, is it not, Mr. Conroy, that all through
10 1975 Bally had under consideration a project to manufacture
11 an electronic controlled pinball game, correct?

12 A. 1975?

13 Q. '74.

14 A. Could you repeat the question? Did you say all
15 throughout?

16 Q. During 1974, prior to the time that you went up to
17 Milwaukee to see Mr. Nutting and Mr. Frederiksen, the idea of
18 going forward into some type of electronically controlled
19 pinball game was under consideration at Bally, correct?

20 A. The major idea was the idea of reducing the cost of the
21 flipper game. And at that particular point in time I
22 personally wasn't sure of the electronic feasibility of doing
23 that, but there were ways of doing it electromechanically.

24 So that's what I was concentrating on, at least in
25 1974.

Conroy - cross

1 Q Will you agree with me that the document before you,
2 4-E, indicates, however, that the evaluation team was con-
3 sidering as a possibility an electronically controlled
4 flipper game, correct?

5 A From this memo, yes, that is correct.

6 Q From the other memo you saw, you indicated that that
7 appeared to indicate that you and Mr. Britz had told
8 Mr. Nutting that you had at least some consideration or some
9 work under way, correct?

10 A I just do not recall doing that.

11 Q When Mr. Bracha was hired and Mr. Englehardt was hired,
12 wasn't that an effort at Bally to upgrade the engineering
13 department at Bally to provide engineers who were more
14 familiar with modern electronic techniques?

15 A Again, it was the idea of the electromechanical --
16 trying to simplify the games. That was one of the things I
17 was interested in.

18 The other was to organize the engineering
19 department. I do not remember getting specific about the
20 electronic area at the time I hired Frank.

21 Q How about when Mr. Englehardt was hired?

22 He was known to have computer and digital
23 logic experience, was he not?

24 A Yes.

25 Q Now, wasn't that an effort to upgrade the engineering

Conroy - cross

1 expertise at Bally into these digital logic and computer
2 science?

3 A I just was not familiar with that area, sir.

4 Q Now, on the occasion that you went up to Milwaukee,
5 Mr. Conroy, you were up there more or less as a businessman,
6 weren't you?

7 A Yes.

8 Q Mr. Bracha and Mr. Telnaes, those were the people who
9 were there as the technicians, wouldn't you say, or the
10 technical people?

11 A Yes.

12 Q Those were the people who were intended to examine
13 Mr. Frederiksen and ascertain whatever they could from a
14 technical point of view about what he was doing, correct?

15 A That is correct.

16 Q You were more or less to apply a more subjective
17 approach, is that correct?

18 A Yes. Well, I was looking at it from a businessman's
19 standpoint.

14-220 Q Now, from the documents

21 I conclude that Mr. Frederiksen

22 going to Mr. Frederiksen should be

23 compensated by a telephone

24 call for 1,400 dollars.

25 A I do not recall that

ont. 1 Q Now, I show you what has been previously marked as
2 Exhibit 131, a memorandum of October 4, 1974, from Mr.
3 Bracha to Mr. J. E. Lally, copy to Mr. O'Donnell, Mr.
4 Britz, and yourself.

5 Now, Mr. Conroy, take a minute to look at this,
6 but let me suggest to you that this was a memorandum pre-
7 pared by Mr. Bracha reporting to the management at Bally
8 about what occurred on the trip to Milwaukee.

9 ~~CONROY~~ Do you recall this memorandum and receiving it?

10 A ~~CONROY~~ It is Plaintiff's Exhibit 131, your Honor. It is
11 also 4-G in your Honor's book.

12 THE COURT: 4-G?

13 ~~MR. LYNCH~~ MR. LYNCH: It just happens to be also 4-G, your
14 Honor.

15 BY THE WITNESS:

16 A Yes.

17 BY MR. LYNCH:

18 Q Do you recall the document, Mr. Conroy?

19 A Yes.

20 Q Now, from the document it indicates or it seems to
21 indicate that Mr. Bracha had gotten only minimal information
22 from Mr. Frederiksen about the details of how the game was
23 controlled by a microprocessor.

24 Is that consistent with your memory?

25 A I do not recall that.

1 Q He did indicate down here that material lists were not
2 available, but he did know they used a particular MCS-4
3 system made by Intel.

4 Do you have any recollection of that?

5 A No, I do not, not specifically.

6 Q Is it fair to say that the information or a primary
7 concern from Mr. Bracha's point of view at the time was a
8 comparison of the cost of an electronical microprocessor
9 controlled game with an electromechanical game, correct?

10 A Yes, that is correct.

11 Q Apparently the information that had been given Mr.
12 Bracha, according to this memo, was information about how
13 much it would cost to go Frederiksen's way without giving
14 them the details of how that would be accomplished.

15 Do you have a recollection of that?

16 A I remember cost evaluating the machines, yes.

17
18
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Conroy - cross

2486

1 Q Cost was an extremely important consideration, was it
2 not?

3 A Yes.

4 Q Also would it be fair to say that this memorandum
5 summarized the information that was given to the team that
6 went up to Milwaukee on September 26, '74?

7 A By summarized, do you mean it describes totally what
8 we went through? Is that your question?

9 Q It summarizes the relevant points with respect to the
10 inspection.

11 A I really wouldn't have any way of knowing that on the
12 technical.

13 Q Let me just call your attention to the third page of
14 the memo, where it talks about comments on the present MCI
15 design.

16 I just call your attention to the fact that
17 here it indicates, "LED displays quite probably not adequate
18 for all locations."

19 That was your observation, wasn't it?

20 A Yes.

21 Q In the evaluation team, Mr. Conroy, was it typical that
22 that team would meet once a month?

23 A Yes, usually about that period of time.

24 Q I call to your attention Defendants' Exhibit 4-I, a
25 memorandum to the evaluation team.

1 Now, that memorandum indicates that on
2 October 15, 1974, I call your attention to IV, you gave a
3 review of the flipper program, and again either before or
4 after or with your presentation, there was a general discus-
5 sion of the progress in the industry in solid state engineer-
6 ing for flippers.

7 Flippers in this case means pinball games,
8 correct?

9 A Yes.

10 Q Do you have any recollection of what that discussion
11 was about, either the flipper program or the general progress
12 in the industry?

13 A Yes, the flipper program we were trying to simplify our
14 electromechanical games, and so I was giving sort of a thumb-
15 nail sketch on how we were going along with that.

16 ~~Music Operations~~ Also we were doing intensive marketing with
17 our distributors and then taking that marketing information
18 back and summarizing it to see what direction we needed to
19 go in order to enhance our flipper game. So it was a report
20 dealing with that also.

21 Q But apparently there was a recognition that solid state
22 engineering was a consideration on the horizon at least for
23 flipper games, correct?

24 A Yes.

25 Q Do you recall going to the MOA Show in 1974?

Conroy - cross

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1 A I don't recall that specific MOA Show.

2 Q Did you go every year?

3 A I used to go different times; not every year, no.

4 Q Can you explain to the Court what the MOA Show is in
5 the context of people who manufacture pinball games?

6 A Yes, it is the Music Operators Association, and it is
7 a time of year where people can put out their new games,
8 their new equipment, and show what they have or what they
9 are working on.

10 Q Is it fair to say it is the largest pinball show of the
11 year, or at least was at that time?

12 A I don't know whether it is or it isn't.

13 Q Do you have any recollection of becoming aware that
14 Atari was advancing into the business of microprocessor or
15 solid state pinball as a result of occurrences at the 1974
16 Music Operators of America Show?

15-27 A No, I don't.

18 Q But apparently it will appear, with I think,

19 Mr. Conroy, that at this time I recall, in those accounts
20 we aware that Atari had come out with a series of at least
21 three pinball machines or games.

23 Q I just won't get into the fine legal points about
24 licensing. It may be called an attorney of counsel or something.
25 Q But you will agree that it was a pattern of a sort

-2bl

2489

Conroy - cross

MR. TONE: I object to that as beyond the scope of direct.

THE COURT: It seems to me it is. Sustained.

MR. LYNCH: Well, your Honor, this has to do with the spurring into activity.

Let me show the witness another memorandum.

BY MR. LYNCH:

Q I show you a document which has been marked as Defendants' Trial Exhibit 4-K, Mr. Conroy. This was another meeting of the evaluation team, correct?

A Yes.

Q I call your attention to paragraph No. 6.

It indicates in paragraph No. 6 that, "the flipper market was reviewed. Atari has a solid state flipper," et cetera.

A Do you have any recollection of those circumstances?

A No, I don't.

Q But apparently you will agree, will you not, Mr. Conroy, that at this time the evaluation team at Bally was aware that Atari had come out with some type of solid state pinball machine, correct?

A I just don't remember that ever being prevalent in my thinking. It never really was a matter of concern to me.

Q But you will agree that it was a matter before the

Conroy - cross

2490

1 evaluation team at that time?

2 A Obviously from the memo, yes.

3 Q You have no recollection of that?

4 A It doesn't stick in my head as anything.

5 Q In your direct examination you discussed to some extent,
6 Mr. Conroy, the Bow and Arrow game; said you couldn't remember
7 if that was the name of the game.

8 I am going to mention another name to you,
9 Boomerang.

10 A I remember the name. I just don't remember specifically
11 which one Bill was working on.

12 Q Do you remember the occasion upon which the work done
13 by Mr. Englehardt and Mr. Bracha was demonstrated to the
14 management at Bally, that is, their work on a microprocessor
15 controlled pinball game?

16 A No, I don't remember a specific date.

17 Q ~~must~~ I show you a status report which you received a copy
18 of, but it is dated June 3rd, 1975. It is a status report of
19 Bally that has been marked as Defendants' Trial Exhibit 4-V,
20 Mr. Conroy.

21 You can read any of it you want, but I want
22 to focus your attention to page 2, the first paragraph under
23 "Electronic flipper EO No. 606."

24 On the second page -- first, do you have a
25 recollection of what electronic flipper EO No. 606 is.

1 Mr. Conroy?

2 A I just remember it as part of the project, yes.

3 Q That was the computerized pinball project identification
4 at Bally, isn't that correct?

5 A Yes.

6 MR. TONE: Excuse me, your Honor. May I be sure
7 I am looking at the same document you are?

8 MR. LYNCH: 4-V.

9 MR. TONE: Okay, that is it. We thought he said
10 4-B.

11 A May we have a moment to find our 4-V?

12 A THE COURT: I don't find it either. I mean, I
13 find the exhibit, but I don't find any reference to that.

14 MR. LYNCH: 4-V, your Honor.

15 A THE COURT: Oh, V, I see, V as in Victor.

16 MR. LYNCH: I have had that trouble with the
17 court reporter, my own team, and --

18 THE COURT: It is that Texas accent.

19 MR. LYNCH: I know that, your Honor. It gets me in
20 trouble all the time.

21 MR. TONE: That was our problem also. We had 4-B.

22 Okay, now you are on page 2?

23 We started in work on 4-B.

24 And the people who came in with us, they had a
25 technical point of view which we

1 Q Now, it indicates at Page 2 of 4-V, quote:

2 "We reached our first major decision point on
3 May 2, 1975. That is when a working model of a micro-
4 processor controlled pinball game was demonstrated to
5 some of our key management people."

6 Do you remember that demonstration, Mr. Conroy?

7 You're listing as being present.

8 A I don't remember that specific demonstration, no.

9 Q Do you have any recollection of what game was being
10 demonstrated at that time?

11 A The name of the game?

12 Q Yes.

13 A No, I don't.

14 Q Do you recall if it was a Boomerang game?

15 A It would be hard for me to say what the name of the game
16 was.

17 Q Is it fair to say, Mr. Conroy, in the interim time between
18 October of '74 and the end of the year that during that time
19 period the decision was made at Bally not to go the Nutting
20 way? *WHAT DO YOU MEAN BY THAT?*

21 A Yes, that's correct.

22 Q You pursued it yourself, correct?

23 A We started to work on it ourselves, yes.

24 Q And the people who controlled that decision from a
25 technical point of view were who?

1 A. From the technical point of view? Frank Bracha was the
2 major voice.

3 Q. Now, with respect to the matter of early work by Bally
4 on a microprocessor controlled pinball machine, I show you a
5 memorandum of Mr. Bracha just to see if it will refresh your
6 recollection.

7 Specifically I'll refer you to Plaintiff's Exhibit
8 374 at the bottom of Page 4 -- well, Page 4 generally, which
9 talks about electronic design of pin games and what was
10 contemplated as being done at Bally in February, 1974.

11 MR. LYNCH: Your Honor, I've got a copy for the Court.

12 THE COURT: That's missing here.

13 BY MR. LYNCH:

14 Q. Does that refresh your recollection, Mr. Conroy?

15 A. I remember receiving quite a few memos from Frank.

16 Q. In other words, you have no recollection of the idea
17 of an electronically controlled or microprocessor controlled
18 pinball game having any -- receiving serious consideration
19 at Bally before September 1974?

20 A. What do you mean by serious consideration? I mean, it
21 had been mentioned.

22 Q. It clearly was something that was in the mind of
23 management at any rate, correct?

24 A. Well, the word solid state had been mentioned before.

25 Q. In connection with pinball, correct?

Conroy - cross
redirect

A. It wasn't something that -- it wasn't something tangible,
though.

Q. But in connection with pinball, correct?

A. Yes, it had been mentioned.

MR. LYNCH: I have no further questions, your Honor.

MR. GOLDENBERG: I have no questions, your Honor.

MR. TONE: Only one or two, your Honor.

REDIRECT EXAMINATION

BY MR. TONE:

Q. Mr. Lynch showed you an Exhibit 4-V, as in Victor.

Do you have that in front of you?

A. Yes.

Q. On Page 4 there is a reference to a date -- I'm sorry,
it's on Page 2. It is the fourth sentence from the bottom of
the page where it says:

"In retrospect it should be noted that this
project began on October 13, 1974," and then it goes on
to say, "and reached its goal on May 2, 1975."

On direct examination -- Mr. Lynch asked you about
that paragraph -- on direct examination you testified that
you couldn't remember the exact date when the Bracha-
Englehardt work on the computer controlled pinball game started.
Do you recall that?

A. Yes.

1 Q Does this memorandum and the reference to October 13,
2 1974, refresh your recollection as to the date when the
3 Bracha-Englehardt work began?

4 A Well, it makes sense that that's when it would have begun.
5 You know, to remember a specific date ten years
6 later is beyond my ability.

7 Q Does that appear to you to be approximately correct?

8 A Yes.

9 MR. TONE: All right. Nothing further, your Honor.

10 MR. LYNCH: No further questions, your Honor.

11 THE COURT: All right. Thank you, Mr. Conroy.

12 (Witness excused.)

13 THE COURT: All right, let's recess until 2:15.

14 (Whereupon at 12:50 p.m. the trial recessed until
15 2:15 p.m. of the same day.)

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1 BALLY MANUFACTURING CORPORATION,) Docket No.
2 a Delaware corporation,) 78 C 2246
3 Plaintiff/Counterdefendant,)
4 vs.) Chicago, Illinois
5 D. GOTTLIEB & CO., a corporation,) March 20, 1984
6 WILLIAMS ELECTRONICS, INC., a) 2:20 p.m.
7 corporation, and ROCKWELL INTERNATIONAL)
8 CORPORATION,)
9 Defendants/Counterplaintiffs.)

10 VOLUME XVII-B
11 TRANSCRIPT OF PROCEEDINGS
12 BEFORE THE HONORABLE JOHN F. GRADY

13 TRANSCRIPT ORDERED BY: MR. JEROLD B. SCHNAYER
14 MR. MELVIN M. GOLDENBERG

15 APPEARANCES:

16 For the Plaintiff/
17 Counterdefendant: MR. SCHNAYER
18 MR. TONE
19 MR. MATHIAS
20 MS. SIGEL

21 For the Defendants/
22 Counterplaintiffs: MR. LYNCH
23 MR. HARDING
24 MR. GOLDENBERG
25 MR. RIFKIN
MR. ELLIOTT

Court Reporter: LAURA M. BRENNAN
219 South Dearborn Street, Room 1918
Chicago, Illinois 60604

Are you a graduate of
You graduated from the University of Illinois
and can you tell me law school?

Stern - direct

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1 THE CLERK: Case on trial.

2 MR. TONE: Good afternoon, your Honor.

3 THE COURT: Good afternoon, Mr. Tone.

4 MR. TONE: We are ready for Mr. Stern.

5 GARY STERN, PLAINTIFF'S WITNESS, DULY SWEORN.

6 DIRECT EXAMINATION

7 BY MR. TONE:

8 Q Would you state your name.

9 A Gary Stern.

10 Q Where do you live, Mr. Stern?

11 A 2130 Lincoln Park West, Chicago.

12 Q What is your present occupation?

13 A I'm president of Stern Electronics.

14 Q Where is Stern Electronics located?

15 A 700 Chase in Elk Grove Village.

16 Q What is its business?

17 A We're in the electronics business and we make games.

18 Q Was Stern Electronics once in the business of making
19 coin operated computer controlled pinball games?

20 A We were.

21 Q Does it still engage in that business?

22 A No, we don't.

23 Q Are you a graduate of a law school?

24 A Yes. I graduated from Northwestern in 1971.

25 Q And did you practice law ever?

Stern - direct

1 A I practiced for a few years.

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2 Q With whom?

3 A Schwartz, Cooper, Kolb & Gaynor.

4 Q And after you left that firm what did you do?

5 A I went to work at Williams Electronics as assistant
6 to the president.

7 Q And approximately when was that?

8 A It would have been 1973.

9 Q And who was the president?

10 A My father, Sam Stern.

11 Q Was there a time when the Stern family had a substantial
12 stock interest in Williams Electronics?13 A My father at one time owned a substantial interest in
14 it, and in 1964 sold it to the then Seeburg Corporation.

15 Q All right. Did he own a controlling interest?

16 A He owned half of it.

17 Q What were your duties as assistant to the president at
18 Williams Electronics?

19 THE COURT: Excuse me. I don't have this clear.

20 You mean he sold half of it to Seeburg?

21 THE WITNESS: No. All of it was sold to Seeburg.

22 He sold his half and somebody else sold their half.

23 THE COURT: Oh, I see.

24 BY MR. TONE:

25 Q What were your duties as assistant to the president?

Stern- direct

2499

1 A I basically handled the day-to-day affairs of the
2 company.

3 Q Did there come a time when you left Williams Electronics?

4 A Yes, there was.

5 Q When was that?

6 A It would have been in early 1976.

7 Q Did your father leave at or near that same time?

8 A Near the same time.

9 Q What did you do after you left Williams Electronics by
10 way of occupation?

11 A For a short period of time I bought and sold games,
12 working out of my house, coin operated games.

13 And then thereafter, at the end of 1976, we
14 formed Stern Electronics, my father, myself and some other
15 investors.

16 Q When you formed Stern Electronics, did you have a
17 particular business in mind?

18 A It was formed to acquire from the -- with the intention
19 of acquiring from the banks of Chicago Dynamic Industries, the
20 assets of Chicago Dynamic Industries.

21 They had -- the banks had foreclosed. They
22 bought at the foreclosure sale. And we bought the assets from
23 the bank.

24 Chicago Dynamic Industries was also a pinball
25 manufacturer.

Stern - direct

2500

1 Q Referring to the time you were at Williams, were you
2 aware of various efforts at Williams to develop an electronic
3 pinball game?

4 A I was aware of various efforts, yes.

5 Q Did you yourself play any part in those efforts?

6 A I attended numerous meetings and worked on various
7 outlines of what should be in a game.

8 Q Did you have an opinion when you were at Williams as to
9 whether Williams had the capability in house to develop an
10 electronic game?

11 A We did not have the capability in house. We had pin-
12 ball type electromechanical engineers; we didn't have elec-
13 tronic people.

14 Q When you were at Williams, did you have an understanding
15 as to the problems, technological problems, that would be
16 involved in developing any electronic game?

17 A My understanding was the problem we were going to have
18 was that we were marrying, if you would, slop components,
19 solenoids, relays, what have you, to a more fine logic system,
20 something that deals in very small current and so forth;
21 whereas we were dealing in big slams and we would have inter-
22 ference.

23 Q What kind of interference?

24 A Some kind of electrical interference because of the
25 draw, the current draw, and so forth, and its static or

1 what have you caused by these components.

2 Again I am not an engineer, so I really am not
3 that familiar. I know that that was a problem. We were talk-
4 ing about the fact that these two systems really don't belong
5 next to each other.

6 Q When you were at Williams there were certain contracted
7 out projects to develop in electronic pinball games, were
8 there not?

9 A Yes.

10 Q You were aware of those?

11 A Yes, I was.

12 Q At the time you left Williams, had Williams developed
13 its own electronic pinball game?

14 A No, they hadn't, I don't believe so.

15 Q Back to Chicago Coin, had that company been a pinball
16 manufacturer, to your knowledge?

17 A Yes, they had.

18 Q Your company was formed to acquire the assets of that
19 company?

20 A Yes.

21 Q What did those assets consist of insofar as they relate
22 to pinball games?

23 A Plant equipment, inventory.

24 Q Did they include the facilities that would be necessary
25 to manufacture pinball games?

2502

1 A Yes.

2 Q What kind?

3 A We had a factory in Chicago, 100,000 square foot. We
4 had punch presses, assembly lines, harness room, so forth.

5 Q What kind of pinball games could those facilities man-
6 ufacture?

7 A We started out making the same games that they made,
8 which were electromechanical pinball machines.

9 Q How long did you go on making electromechanical pinball
10 games?

11 A A number of months.

12 Q Did there come a time when you ceased manufacturing
13 electromechanical pinball machines?

14 A Yes, we did.

15 Q Why did you do that?

16 A The marketplace was at that point changing from electro-
17 mechanical to solid state, and we really didn't have a
18 marketable unit. We needed a solid state system, solid
19 state game.

20 Q What did you decide to do then?

21 A We decided to, not having the time to develop or any-
22 thing, but we decided to look at what was available in the
23 field at that time, which was only the Bally unit, and we
24 reverse engineered it.

25 Q You say, "we reverse engineered it."

1 Did you do it with your own engineers or did you
2 have somebody else do it?

3 A No, we engaged another firm to reverse engineer it.

4 That's interesting.

5 So you didn't do it.

6 All right, so you didn't do it.

7 I'm sorry, I'm not understanding.

8 A Yes, what do you mean?

9 After you say you didn't do it.

10 You didn't do it.

11 So you didn't do it.

12 I'm not understanding.

13 I'm not understanding.

14 I'm not understanding.

15 So you didn't do it.

16 Yes, I didn't do it.

17 That's what I'm trying to get at.

18 So I think I'm getting at the point.

19 Now at the point,

20 Q did you ever have a conflict

21 basically on the subject of the

22 Let's answer?

23 A Yes, my son and I

24 because of that application

25 that is still ongoing.

1 Q As a result of that reverse engineering, did there emerge
2 a computer controlled pinball game?

3 A Yes, there did.

4 Q How long did that take; do you recall?

5 A Three to six months.

6 Q At the end of that time or at some time, did Stern
7 commence manufacturing such a game?

8 A Yes, we did.

9 Q About how long between the time you started developing and
10 the time you went into production, if you recall?

11 A About three to six months.

12 Q At that time were you aware that Bally had a patent
13 application?

14 A I had heard that.

15 Q On a computer controlled pinball game?

16 A Yes, I had heard that.

17 Q Did you know any more about it than that?

18 A No, I knew they had an application, and that is all I
19 knew at the point.

20 Q Did you ever have a conversation with any officer of
21 Bally on the subject of Stern Electronics manufacture of pin-
22 ball games?

23 A Yes, my father and I had a meeting. We set up a meeting
24 because of that application to talk to Bill O'Donnell about it.

25 Q That is Bill O'Donnell, Sr.?

1 A. Yes, it is.

2 Q. Your understanding of his position at Bally was that he
3 was what?

4 A. Chairman, president.

5 Q. When did that meeting take place?

6 A. I would have to say it was in the fall of '77. Actually
7 the exact date of it would be the date that the patent was
8 issued because that is what he told us, their patent had just
9 been issued that day.

10 Q. He told you the patent had issued that day?

11 A. That day.

12 Q. The evidence is that the patent issued on June 6, 1978.

13 A. That is when it was.

14 Q. That is when it was?

15 A. That is when it was.

16 Q. In substance what did you and your father say and what
17 did Mr. O'Donnell say in that meeting?

18 A. I did most of the talking on our side, and I said that
19 we understood that they had a patent application. He said the
20 patent was issued that day.

21 A. We said, you know, we would like to have our attorney
22 study it, and if it seems wise, we would like to ask for a
23 license under it.

24 Q. What did Mr. O'Donnell say?

25 A. He agreed to that.

Stern - direct

1 Q Did you have your attorney study it?

2 A Yes, we did.

3 Q Did you receive advice from your attorney as to what to
4 do?

5 A Yes, our attorney thought that it would probably be wise
6 to take a patent license under it.

7 Q Did you then go back to Mr. O'Donnell?

8 A Yes, and we negotiated a license.

9 Q You negotiated a license agreement?

10 A Yes.

11 Q I show you a document marked Plaintiff's Exhibit 76 and
12 ask you whether you recognize it?

13 A Yes.

14 Q Is that a copy of the license agreement that was
15 ultimately executed?

16 A Yes, it is.

17 Q That license agreement refers to existing patents, and
18 you have testified that the patent issued on June 6, 1978;
19 you knew about that at the time.

20 It also refers to applications, right?

21 A Yes, it does.

22 A My understanding is that the

23 A My understanding is that the

24 A My understanding is that the

25 A My understanding is that the

•lbl Stern - direct

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1 Q It also provides for an assignment by Stern Electronics
2 to Bally of a different patent, a patent relating to video
3 slot machines?

4 A Yes, it does, yes.

5 Q By the way, at this point, did you know that the patent
6 that had issued to Bally was the Nutting-Frederiksen patent?

7 A I vaguely remembered Nutting is a name in it.
8 Frederiksen I don't.

9 Q Was the agreement, Plaintiff's Exhibit 76, executed on
10 or about the date it bears, October 25, 1978, by Mr. O'Donnell
11 on behalf of Bally and you on behalf of Stern?

12 A Yes.

13 Q Did Stern Electronics thereafter manufacture computer
14 controlled pinball games under this license?

15 A Yes, we did.

16 Q How many games did you manufacture?

17 A About 60,000.

18 Q Did you pay royalties to Bally --

19 A Yes, yes, we did.

20 Q -- under the license on those games?

21 A Yes, we did.

22 Q Approximately in what amount?

23 A About three-quarters of a million dollars.

24 Q At the time you negotiated the license, you were aware
25 of the patent that had issued, right?

1 A Yes.

2 Q Were you also aware that Bally had at least one other
3 application on file with respect to a computer controlled
4 Pinball game?

5 A Yes, I was aware of it. Mr. O'Donnell had told me
6 that.

7 Q Was your -- when you consulted your attorney and he
8 advised you to take a license, did you show him the patent
9 that had issued on June 6th?

10 A I know we showed him that patent, sure, of course.

11 Q At that time had any other patent issued?

12 A Not to my knowledge, no.

13 Q Can you say whether your reason for entering into the
14 agreement was the issued patent or any application that may
15 have been on file?

16 A Well, certainly the issued patent is what we were
17 concerned with at that point. We also did not want to find
18 that there was something else afterwards that was
19 going to -- after we signed one
20 license agreement and have another license agreement coming
21 up, but I was not familiar with the application. I do not
22 remember if my attorney was or not.

23 The existing patent was the one that was our
first concern.

24 MR. TONE: May I have a moment, your Honor?

3
Stern - direct
1 - cross

2 THE COURT: Yes.

3 (Brief interruption.)

4 MR. TONE: Your Honor, we offer Plaintiff's
5 Exhibit 76 into evidence.

6 THE COURT: All right, that is received.

7 (Plaintiff's Exhibit 76 was received into evidence.)

8 MR. TONE: No further direct examination.

9 A Yes. CROSS EXAMINATION

10 BY MR. GOLDENBERG:

11 Q Mr. Stern, if I understood you correctly, you met with
12 Mr. O'Donnell on the day the Nutting and Frederiksen patent
13 issued?

14 A That is what he had told us. He told us that it issued
15 that day.

16 Q He told you it was that day.

17 Now, in the course of that meeting, did you
18 tell Mr. O'Donnell that you had had the Bally solid state
19 pinball game reverse engineered?

20 A I am sure by that time he knew it.

21 copy, your honor.

22 It is more than complex, because you
23 get up printed circuit boards, getting them off
24 all the capacitors do so there.

25 The problem then is to get them out of
26 is to get that board to do what you want it to do.

1 Q You were on the market with it at that point?

2 A Yes.

3 Q How long had you been on the market with it?

4 A Sir, we first showed -- we showed our game, it was a
5 game called Pinball, at the AMOA show, would have been '77,
6 fall of '77.

7 Q That AMOA show is usually in the latter part of October--

8 A Yes. It's usually in the latter part of October--

9 Q -- early November?

10 A Yes.

11 Q Of each year.

12 A I believe those are the dates.

13 THE COURT: I've never heard the phrase reverse
14 engineer before. Does it mean copy?

15 MR. GOLDENBERG: Copy.

16 THE WITNESS: Yes.

17 THE COURT: It's a little more sanitary sounding
18 than --

19 THE WITNESS: It's a little bit more difficult to
20 copy, your Honor.

21 It is more than copying, because you can copy a
22 set of printed circuit boards fairly easily if you know what
23 all the chips do on them.

24 The problem then is to get those particular chips--
25 is to get that board to do what you want it to do, and that's

1 where reverse engineering comes into play.

2 BY MR. GOLDENBERG:

3 Q You copied the Bally circuit configuration, didn't you?

4 A Yes, we did.

5 Q And you even copied their computer program, didn't you?

6 A We didn't copy the computer program. We reverse engin-
7 eered it.

8 If we had copied their computer program, then our
9 game would only have run their game.

10 Q I understand. You made such changes as were necessary
11 to permit the Stern game to be run.

12 A What we did, first of all, there were some minor changes
13 in the printed circuit boards themselves, which are not of
14 any significance, as I understand it.

15 But what we did is, we found out how their system
16 ran, how their -- their computer program ran the system, and
17 then we wrote a new program to run the system to do something
18 else.

19 It's not just merely a matter of changing, as you
20 know, because you've got to get into the whole thing.

21 Q Did you ask for the meeting with Mr. O'Donnell?

22 A Yes.

23 Q What led you to ask for that meeting?

24 A Talk about, you know, some kind of knowledge that they
25 had a patent application pending. And I thought it was

1 about time we tied up any loose ends in that respect, if
2 there were any.

3 I really don't remember anything else it did.

4 Q In the course of that meeting did Mr. O'Donnell tell
5 you that Bally had filed suit or was about to file suit
6 against Williams and Gottlieb?

7 A He might have. He might well have, I don't remember
8 for sure, but it starts to -- it rings a little bell.

9 Q So would it be a fair statement that on that day you
10 had a genuine concern that your company was going to be the
11 subject of a lawsuit?

12 A Oh, absolutely. Absolutely.

13 Q Was an actual threat of litigation made?

14 A No."

15 Q But it was a belief that you had?

16 A There was no threat of litigation made at that time,
17 and there was a belief that at some point in time certainly
18 we'd have to fall in with everybody else.

19 The question then was whether or not we wanted to
20 be -- to fall in with everybody else, or we wanted to, which
21 would be sued, as the case may be, or, you know, take a
22 license under the patent.

23 Very honestly, I think we would have been a little
24 bit later being sued. We weren't very important at the time.
25

Stern - cross

1 Q Now, you said you consulted with your attorney?

2 A Yes.

3 Q This was following the meeting with Mr. O'Donnell?

4 A Yes.

5 Q Were there any meetings with your -- any consultations
6 with your attorney prior to that meeting?

7 A I really don't remember. I believe we mentioned it in
8 passing, but I don't think it was any great discussion.

9 He might have been the one that told me about
10 it, I really don't remember.

11 Q I take it your attorney was a patent attorney?

12 A George Gerstman.

13 Q And how many meetings did you have with your patent
14 attorney?

15 A I don't know. We had many meetings on various sub-
16 jects. I honestly don't remember.

17 Q On this subject.

18 A I don't know, a number.

19 Q More than one?

20 A Sure.

21 Q Do you know whether or not he undertook any investiga-
22 tion prior to giving you any kind of advice as to what to do?

23 A He did some investigation. I can't tell you to what
24 extent.

25 Q Did he do a great deal?

1 A I don't know the answer to that.

2 Q Do you remember the size of your bill?

3 A No... Too big. But then they're always too big, aren't
4 they?

5 Q How long after the meeting with Mr. O'Donnell did you
6 receive this advice that it would be in your interest to
7 enter into the license agreement?

8 A I don't remember the time frame.

9 Q Was that one month or --

10 A Probably. I really don't remember the time frame.

11 It's a long time ago.

12 Q Well, it was sometime between the issue date of the
13 patent and the signing of the agreement, which I think is
14 October 5. Is that correct?

15 A Yes. Yes.

16 Q And I take it it took a bit of time to negotiate the
17 terms of the license agreement?

18 A Yes.

19 Q Was there some other collateral controversy involved
20 during that period --

21 A No.

22 Q -- I notice in the license agreement there's an assign-
23 ment of a patent from a Mr. --

24 A Ologess.

25 Q Ologess.

1 A That was a patent on a slot machine, video slot machine,
2 that Bally had once taken a -- my understanding is, they had
3 once taken an option on the patent, which had since expired,
4 but they apparently were still interested in it.

5 We -- and it was additional consideration.
6 It was not, you know, it was not something we were going to
7 pursue, and it was something in their field. There was no
8 controversy about it.

9 Q Would it be a fair statement, sir, at the time you made
10 the decision to enter into a license agreement, that the
11 principal consideration in your mind that this really seemed
12 to you to be the most reasonable economic course to take
13 from your company's point of view?

14 A We felt it was the most reasonable economic course.
15 We also felt that, based on what George, or Mr. Gerstman
16 said, that there were numerous claims, that he thought that
17 the likelihood that they'd prevail, Bally would prevail on
18 some or all of them was good.

19 And in dollars and cents, certainly it made
20 more sense to do that than to enter into litigation. And
21 we're not exactly litigators, to start with, as you know.

22 Q I do.

23 These other claims were claims other than
24 patent claims?

25 A No, no. Patent claims. I'm talking about the number

4
Stern - cross

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1 of claims in the patent itself.

2 It was basically a matter of the number of
3 claims, the value of the claims in his mind versus the
4 economics.

5 He had a lot of claims in the patent.

6 He would have to pay a lot of money.

7 The attorney was aware of Stern's position.

8 Stern was told he could not sue for all of the claims.

9 Stern was told he could sue for some of the claims.

10 Stern was told he could sue for some of the claims.

11 Stern was told he could sue for some of the claims.

12 Stern was told he could sue for some of the claims.

13 Stern was told he could sue for some of the claims.

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23 Stern was told he could sue for some of the claims.

24 Stern was told he could sue for some of the claims.

25 Stern was told he could sue for some of the claims.

Stern - cross

1 MR. GOLDENBERG: I have no further questions of this
2 witness.

3 BY MR. LYNCH:

4 Q. Mr. Stern, I show you a copy of what I have marked as
5 Exhibit 12-DD, may it please the Court, your Honor.

6 Can you identify that document for the Court, sir?

7 A. Yes, this is a letter which I sent out to our distrib-
8utors, announcing that we had a solid state pinball machine
9 and that it used basically the same circuitry and the boards
10 are interchangeable between Stern and Bally.

11 Q. The second paragraph, second sentence, says --

12 A. Yep.

13 Q. -- "Our electronic pinballs use a system that is
14 the same as Bally's," correct?

15 A. It goes on to say, "...except that we have used more
16 reliable components in some places," which really wasn't
17 the truth.

18 I mean, we had made some minor changes, but it was
19 basically the same system. It was interchangeable..

20 I laugh because that particular phrase got me a lot
21 of laughing at, shall we say.

22 Q. But your system was literally interchangeable board for
23 board with Bally's?

24 A. Absolutely.

25 Q. One of the advantages this afforded you was that rather

1 than training your own service people, Bally's service people
2 could service Stern machines?

3 A. No question about it, and parts in the field were inter-
4 changeable. Therefore, we didn't have to supply extra
5 printed circuit boards to keep our machines running.

6 As a matter of fact, you know, the same technicians
7 could work on either machine.

8 It is actually what we call a stroke of the
9 obvious, instead of re-inventing the wheel. There was a
10 perfectly acceptable system out there. It was the fastest
11 system for us to get into because we could reverse engineer
12 that faster than we could turn around and design a whole new
13 system, and for marketing purposes, it just made the most
14 sense to have something that the operator is already familiar
15 with. He liked that system.

16 Q. Was this about the time when you first were bringing
17 this onto the market?

18 A. This was the time when we were first bringing it to the
19 market, yes, sir.

20 Q. You testified, Mr. Stern, that there was a time when you
21 had a first conversation, I believe, with Mr. O'Donnell,
22 where Mr. O'Donnell told you he had a patent application.

23 A. No, I said that the first conversation was when he told
24 us that the patent had issued that day, and apparently that
25 was in June. That was after we came out with our game.

1 Q Was there ever a conversation before that that you had
2 with Bally individuals where there was an indication that
3 they might have a patent that would affect you when and if it
4 issued?

5 A There might be. I don't remember.

6 Again, I knew there was a patent application. I
7 don't remember how or where I heard -- it was pretty common
8 knowledge within the industry. It was no great secret.

9 Q Was it common knowledge at the time that you came out
10 with your letter to distributors, 12-DD?

11 A Might have been. I don't remember. Might well have been.

12 Q In the third paragraph of Exhibit 12-DD, it says, "None
13 of the above advantages,--" those are, I guess, the advantages
14 of identicity with Bally.

15 A Yes. Systematically reverse engineered from the Bally

16 you remember with Bally, and so --

17 No, I don't. I really didn't understand what was in
18 that to copy it from.

19 When you talk about now, did your memory of si-
20 ckle use to copy the relevant properties, like the
21 the patent application?

22 A I didn't pay attention to the patent application. I know
23 you used to use Bally identically.

24 Q In fact I'm told later, that one of your employees in
25 you in asking your distributor one of your customers in

1 Q (Continuing) "...go along with other pinball lines."

2 Would you explain to the Court what that means?

3 A This was a heck of a letter, wasn't it?

4 What we were saying is we were the only pinball
5 company, other than Bally, of course, we were the only pin-
6 ball company that was not re-inventing the wheel, as I said
7 before, but that we had a system that the operator was
8 familiar with. The spares were already in the field. The system could
9 be easily worked on by people who were already familiar with
10 it, and it also, by the way, allowed us to be the second com-
11 pany out in the field with a solid state pinball machine,
12 being as we were both the youngest company, we were the
13 second company.

14 Q The system that you reverse engineered or copied, do
15 you remember which Bally machine--

16 A No, I don't. I really don't remember which machine we
17 had to copy it from.

18 Q When you took your license, did your attorney or anyone
19 else ask to survey the Bally patent properties, including
20 the patent application?

21 A I don't remember about the patent application. I know
22 we had looked at the patent itself.

23 Q Is it fair to say, Mr. Stern, that one of your objec-
24 tives in taking this license, or one of your objectives in

1 adopting the Bally system was to get into the market quickly,
2 correct?

3 A Absolutely.

4 Q At the time that you took the Bally license, you did
5 know that any evidence in any litigation would prove that
6 Stern had basically copied the entire Bally system, correct?

7 A I knew that. On the other hand, I also knew that --
8 first of all, I was not -- what we wanted was a license under
9 the patent. It was not very likely -- copying of electronic
10 systems goes on all the time, and also I would think that we
11 would have been estopped from -- we borrowed the machine
12 from Bally that we copied, so I don't think there would have
13 been any problem with that.

14 Our concern was the license, was the patent.

15 MR. LYNCH: I have no further questions.

16 MR. TONE: Your Honor, we have no redirect.

17 THE COURT: All right.

18 (Witness excused.)

19 MR. TONE: We ask leave to recall Thomas Neuman
20 for some very short testimony which should have been included
21 in our original direct.

22 THE COURT: All right.

23 MR. TONE: I said Thomas Neuman. I meant Thomas
24 Nieman. I mis-spoke.

25 (Brief interruption)

1 Q Was that document prepared from records kept by Bally in
2 the ordinary course of its business?

3 A Yes, sir.

4 Q Is it correct to say that what adds to your previous
5 testimony is a conversion of units to dollars?

6 A Yes, sir. It gives you the gross revenues, the sales of
7 those units and then calculates the average sale price per
8 unit during the course of that year.

9 Q Next, Mr. Nieman, I hand you a Xerox copy of Plaintiff's
10 Exhibit 464, which purports to be a copy of an article from a
11 trade magazine known as Playmeter.

12 Q Do you recognize it?

13 A I recognize Playmèter magazine, and this appears to be
14 their annual survey.

15 Q From what issue of Playmeter magazine?

16 A It is marked at the bottom as November '78, what they
17 refer to as the 1978 survey.

18 Q Tell us what Playmeter magazine is?

19 A Playmeter magazine is a trade journal within the industry,
20 one of two that I think would be considered the most active
21 and most reliable trade journals within the industry.

22 Q Are trade surveys made by Playmeter magazine and pub-
23 lished in issues of the magazine generally used and relied
24 upon by persons in the electronic game industry?

25 A Well, they certainly were used by us at Bally. We read

Nieman - direct

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1 with great interest the information that was generated out of
2 surveys like this one and other trade journals.

3 It would be my impression in conversations with
4 other people within the industry, being distributors or some-
5 times possibly operators, that they also read those surveys
6 and that to some extent, they gave them the credibility that
7 we obviously did.

8 Q. Can you say whether the article before you is an actual
9 copy of the article from the magazine?

10 A. Well, it appears to be a Xerox of the pages from the
11 magazine, yes.

12 MR. TONE: If the Court please, we offer Plaintiff's
13 Exhibits 470 and 464.

14 MR. GOLDENBERG: Your Honor, we object to that. I do not
15 think it comes within the --

16 Could you tell me what rule you are quoting?

17 MR. TONE: Yes. We are relying upon Rule 803(17),
18 market reports commercial publications.

19 I will quote from the rule now, if I may, your
20 Honor:

21 "Market quotations, tabulations, lists,
22 directories, or other published compilations generally
23 used and relied upon by the public or by persons in
24 particular occupations..."

25 The Advisory Committee note to the rule amplifies

1 a little. It speaks of -- it refers to Section 1702 of
2 Wigmore, and it speaks of newspaper market reports, telephone
3 directories, and city directories.

4 Then it says:

5 "The basis of trustworthiness is general
6 reliance by the public or by a particular segment of it,
7 and the motivation of the compiler to foster reliance
8 by being accurate."

9 Our submission is that this is a market report,
10 a survey report of market conditions, that it falls within
11 this exception under Rule 803, that the compilers of the
12 report at the time had no interest in this litigation or
13 any litigation like it and were attempting to develop figures
14 useful to the various segments of the industry who might want
15 that information.

16 But I am not sure if you are asking me to rely on
17 any particular compilation. But you have got to prove that
18 the particular compilation which you say is the subject of the case was
19 prepared with the intention of being used in
20 litigation.

21 You don't know that plaintiffs would necessarily
22 be sued while any particular compilation was being used in
23 preparation of the defense of the suit.

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Nieman - direct

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2 MR. GOLDENBERG: Your Honor, if I may, I think clearly
3 the exception that the rule was intended to apply to was such
4 matters as business directories, Dow Jones stock market
5 reports as to prices of stock on markets. It was intended
6 to apply to that kind of thing.

7 In other A survey of any kind wherein the source of the
8 information is not known and, indeed, I think the evidence
9 you have heard also falls far short of showing reliance on
10 this kind of thing.

11 We know, for instance, there are other magazines
12 with other different surveys. I do not think that this came
13 within -- was within the thinking of the committee.

14 I also believe that there really is a large well-
15 established body of law even following the enactment of the
16 Federal Rules of Evidence, that if you are going to rely on
17 surveys, you have got to prove the survey. And I am not
18 talking about tabulations. But you have got to put on the
19 stand the person who took the survey, how the data was
gathered, what his responses were, and so forth.

20 I do not believe that plaintiffs could really find
21 a case where any kind of survey evidence was admitted under
22 this provision of the Rules of Evidence.

23 John? on the survey, your Honor, indicates a 12
24 at I MR. LYNCH: The survey, your Honor, indicates a 12
25 percent response, a 12 percent response from people surveyed

1 right on its face.

2 The survey, for all I know, could be based on
3 information at least in part from Bally and its distributors.

4 What the questions were, what the basis of the
5 answers were, and why there is only a 12 percent as indicated
6 in Column 1 -- a 12 percent response, Column 1, the bottom of
7 the second paragraph, your Honor. We have a 12 percent
8 response.

9 This is like, your Honor, each individual publica-
10 tion deciding to tell you what the number one record is.

11 As Mr. Goldenberg says, there are surveys. There
12 is information like this, as I understand it, available from
13 virtually every trade publication. That does not make it
14 evidence of what was occurring in the market at that time.

15 It is purely hearsay.

16 MR. TONE: If the Court please, the exhibit falls within
17 the exception. The exception is not limited to stock market
18 reports and other similar compilations. It, in fact, has a
19 general catch-all or other published computations.

20 What counsel say goes to the weight that might be
21 given to the evidence, but in this field, there are no market
22 figures available except figures prepared on this basis.

23 The manner in which the survey is prepared goes to its weight,
24 but I think not to its admissibility.

25 MR. GOLDENBERG: Your Honor, I think it goes to

1 admissibility. If plaintiff wanted it to introduce survey
2 evidence in this case, they could have taken a survey. A
3 survey could have been conducted. We then would have had the
4 opportunity to cross examine the taker of the survey and give
5 the Court a chance to assess its reliability.

6 It really is denied that in this situation. It
7 goes to far more than weight.

8 THE COURT: I am looking for something I thought was in
9 here, but I cannot find it.

10 Isn't there a reference to surveys in the rule?
11 There does not seem to be a separate exception in Rule 803
12 for it. Is it someplace else?

13 MR. TONE: Your Honor has struck a chord. I am looking
14 myself.

15 MR. GOLDENBERG: I looked in the index. I found some-
16 thing about land surveys.

17 THE COURT: I have received surveys in evidence before,
18 and it is my recollection that I referred to some rule that
19 was specific to surveys.

20 MR. TONE: Yes.

21 THE COURT: If there is such a rule, then that would
22 indicate that the exception we are dealing with here is
23 something different.

24 MR. GOLDENBERG: Can I make a suggestion, your Honor?
25 We are going to be resuming next Monday. I take it you

1 have done all that you intend to do with this witness at this
2 time?

3 MR. TONE: That is right. I am ready to conclude the
4 direct examination.

5 MR. GOLDENBERG: Would it be perhaps expeditious if you
6 were to reserve ruling and then by next Monday each party
7 could submit whatever it has in support of its view, hopefully
8 short?

9 THE COURT: Well, I think this meets the description of
10 a published compilation. The question is whether it is
11 generally used and relied upon by persons in these occupations.

12 Now, if it is, then I suppose that it may be a hap-
13 hazard kind of thing that would not render it inadmissible.
14 It might be inadmissible under 403, which means unreliable,
15 but this exception makes it non-hearsay or at least an
16 exception to the hearsay.

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2 Let's assume you've got an occupation that
3 has one trade journal run by a very slipshod operation, and
4 they come up with statistics that are little better than
5 nothing, but they are a little better than nothing, so that
6 the occupation relies upon them, the trade relies on it, that's
all there is, it's the only game in town.

7 I think that would be admissible under this
8 exception to the rule.

9 MR. LYNCH: Your Honor, I suggest to the Court
10 that reliance means that you rely on it as authoritative--

11 THE COURT: Now, what we're missing here, I think,
12 is a strong statement to the effect that this is relied on.
13 Let's explore that a little more with this witness.

14 I think he said that, but let's find out a
15 little bit more about that. I mean, we all know, I think,
16 that there's a publication in the phonograph record industry,
17 at least there used to be -- what was it called?

18 MR. GOLDENBERG: Billboard Magazine --

19 THE COURT: -- Billboard.

20 MR. GOLDENBERG: And Cashbox is another one.

21 THE COURT: Wasn't there something called Downbeat
22 or something like that?

23 MR. GOLDENBERG: I think Downbeat is gone.

24 THE COURT: It was so unreliable it went out of
25 business.

1 Let's find out -- is this the Billboard of
2 the electronic game industry?

3 MR. GOLDENBERG: My understanding, it's one of
4 the publications, but perhaps Mr. Nieman is --

5 MR. TONE: Very well.

6 BY MR.TONE:

7 Q Can you respond to the Judge's question, Mr. Nieman?

8 A Over the past four or five years there's been a number
9 of publications that have attempted to address themselves to
10 the coin operated amusement industry.

11 Two publications have really surfaced as,
12 repeatedly as the strongest of the two, and are looked at and
13 viewed by the industry as the sources for the industry:
14 Playmeter is one and Replay is another one.

15 Q You said the last four or five years.

16 A This article is a little earlier than that,
17 I think.

18 A It's 1978.

19 Q 1978. So I ask you what -- I ask you the same question
20 with respect to the year 1978.

21 A Well, in 1978 there was probably four periodicals that
22 would fall under the classification as trade journals to the
23 industry. And again I would say two of those four were
24 viewed as far better sources than the other two, and those
25 two would have been Playmeter and Replay.

Nieman - direct

2532

1 THE COURT: Well, I'm going to receive it under
2 Rule 803.17. But that rule refers only to compilations --
3 "quotations, tabulations, lists, directories, or other
4 published compilations."

5 There's a lot of text material which I don't
6 think meets any of those descriptions.

7 I'll accept the compilations, the lists, the
8 charts and any text that is necessary to understand what the
9 charts are supposed to mean.

10 But any of the commentary that's contained
11 in the text, I won't receive that because I don't think that
12 comes within the rule.

13 MR. TONE: Very well. That concludes the direct
14 examination, your Honor.

15 THE COURT: Any cross?

16 MR. TONE: I take it your Honor received the
17 other exhibit. I offered two, the other was a --

18 THE COURT: Yes. Now, this was made, 470 was
19 prepared by you or under your supervision there --

20 THE WITNESS: Yes, sir.

21 THE COURT: -- there at Bally?

22 THE WITNESS: Yes, sir, under counsel's request.

23 THE COURT: It's not really a business record, but
24 I assume it's based on business records. It's a summary.

25 MR. TONE: We established that it was based on

Nieman - direct
- cross
the business records. I did not ask the witness whether he had prepared it. I should have, but your Honor has cleared that up.

THE COURT: This is something that was prepared at Bally based on their books and records?

THE WITNESS: Yes, sir.

THE COURT: And you vouch for its accuracy.

THE WITNESS: Yes, sir. I compiled it.

THE COURT: You personally compiled it.

THE WITNESS: Yes, sir.

THE COURT: Okay.

MR. TONE: I asked him whether counsel asked him to do it, and then I didn't ask the question establishing he did it. Thank you.

CROSS EXAMINATION

BY MR. GOLDENBERG:

Q Mr. Nieman, do you know whether or not any of the pinball games sold by Bally and appearing in the tabulation in Exhibit 470 incorporate the invention of the Nutting and Frederiksen patent?

A Sir, I do not know for sure. It is my impression, but I am not a technical person.

Q Do you know, sir, whether or not they incorporate the invention of any other patent?

A I would not know specifically which patents they did

5
Nieman - cross

1 or did not incorporate. 2534

2 And in reference to the last question, of
3 course the Nutting patent would have referenced games built
4 in the electronic format versus the electromechanical format.

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Computer game sales

Mr. Nieman, do you have any production figures for 1967?

A Yes, sir.

Q Can you give me a chart which shows the production figures that have been awarded by Plaintiff's side? In addition,

A Yes, I am familiar with this.

Q Can you produce also at the request of counsel, for Plaintiff?

A Yes, sir, I did.

Q What does it purport to show?

A What it does is combine information from the following:

For the years 1965 through 1968 it gives you the production numbers of model 2. In other words, it shows 1965 through 1968 plus you the unit sales if you will, in the first right-hand column plus you the gross revenues in, in effect, basis of those figures and on a columnar, the average selling price per unit, discounted annually with the number units sold for during those years.

1 THE COURT: Good afternoon, Mr. Nieman.

2 THE WITNESS: Good afternoon, your Honor.

3 THE COURT: You may be seated.

4 THOMAS S. NIEMAN, PLAINTIFF'S WITNESS, PREVIOUSLY SWORN

5 DIRECT EXAMINATION

6 BY MR. TONE:

7 Q Mr. Nieman, you testified here previously, did you not?

8 A Yes, sir.

9 Q Can you identify a chart which I am handing you and
10 which has been marked as Plaintiff's Exhibit 470?

11 A Yes, I am familiar with this.

12 Q Did you prepare that at the request of counsel for
13 Bally?

14 A Yes, sir, I did.

15 Q What does it purport to show?

16 A What it does is compile information for the following:

17 For the years 1974 through '81 it gives you the
18 production numbers of pinball units manufactured by Bally;
19 '74 through '82 gives you the unit sales figures; and the far
20 right-hand column gives you the gross revenues generated on
21 sales of those figures; and one column over, the average
22 selling price per unit, calculated annually what the average
23 unit sold for during that year.

1 Q I am sorry, sir. Your voice dropped.

2 A Your first question in regard to did they include games
3 manufactured under the Nutting patent, my response was they
4 did include. I didn't mean to infer that all of them on this
5 report included the Nutting. Some of those that were built
6 in the electromechanical format I do not believe would have
7 included.

8 Q Do you believe solid state patents included in this
9 tabulation incorporate the invention of the Nutting and
10 Frederiksen Patent?

11 A Yes, sir, I believe that the electronic machines in-
12 cluded in this tabulation do include that.

13 Q What do you understand the invention of the Nutting
14 and Frederiksen patent to be?

15 A I believe that it was included in all our production
16 of electronic machines.

17 Q I appreciate that, sir, but -- All right, let me ask you.
18 What is the basis of your belief that the solid state
19 machines incorporate the Nutting and Frederiksen patent?

20 A Being told by those that are engineers.

21 Q So that is simply what somebody told you?

22 A Yes, sir.

23 Q You don't know that of your own personal knowledge?

24 A No, sir, I don't.

25 Q Didn't somebody also tell you that the solid state

1 machines also include the invention of Bracha and Englehardt?

2 A I am to understand that some machines do, and I am not
3 sure if all machines do, and again via someone telling me
4 that, not from my knowledge.

5 Q And again someone told you that.

6 Now, Bally marks patent numbers on its products,
7 does it not?

8 Don't they put a label in there saying what
9 patents are involved in the particular product?

10 A Again, sir, it is my understanding, but that is not an
11 area where I was directly involved, so it would be difficult
12 for me to testify from first hand.

13 It is my understanding that they do, but ...

14 Q Have you ever looked in the back box of a Bally pinball
15 game and seen a patent label?

16 A I believe I have, sir, yes, sir.

17 Q I show you a document that we have identified as
18 Defendants' Exhibit 12-CC and ask you if that is not a
19 facsimile of the patent label that Bally uses in some of
20 its solid state pinball games?

21 A I have no idea if that is a facsimile.

22 Q You don't recognize it as such?

23 A NO.

24 MR. GOLDENBERG: All right, I do believe we have an
25 agreement between the parties that that Exhibit 12-CC is used

1 as a patent marking label in at least some of Bally's solid
2 state pinball games.

3 MR. TONE: That is correct, your Honor.

4 MR. GOLDENBERG: I have no further questions.

5 BY MR. LYNCH:

6 Q One thing, Mr. Nieman. Do you know the period of time
7 that is covered by the compilation included in 464, the
8 Playmeter survey?

9 A Well, they publish it on an annual basis, and they re-
10 fer to them as an annual survey. They send out their ques-
11 tionnaires at one point in time, collect them, and then
12 compile the information and publish it in this November
13 issue.

14 Q They publish it in the November issue.

15 Q Do you know from people in the industry what you
16 would regard as the year period that this survey would be
17 applicable, mid '77 to mid '78?

18 A Well, within the industry it was considered applicable
19 from November previous to November then when it was printed.
20 The printing dates are really referenced as the point of the
21 survey, though the actual information is collected during a
22 preset time during that 12-month period.

Nieman - cross

1 Q Do you know when that time was? 2538

2 A I don't recall exactly. I have discussed this with
3 Playmeter in the past, but the exact period of time that
4 they let their questionnaire sit out there, I wouldn't be
5 able to testify.

6 Q We know the Nutting and Frederiksen patent issued in
7 June 1978.

8 Did this survey have to do with a time before the
9 Nutting and Frederiksen patent issued?

10 A It is my understanding that they collect their infor-
11 mation far closer to publishing date. So it would be my
12 impression the information would have been collected, the
13 questionnaires disseminated and collected at a time after ~~June~~
14 June.

15 Q. Yes, but it would have covered a period going well
16 prior to June, correct?

17 A As far as the total information concerned, again I
18 reference it from November of '78 through November of --
19 November of '77 through November of '78.

20 Q But you know that the information is probably only
21 current as of September or August or October or something
22 like that because of the time lag?

23 A That is when they collected the actual data. That is
24 when the questionnaires were disseminated and collected.

25 MR. LYNCH: No further questions, your Honor.

1 MR. TONE: No redirect, your Honor.

2 THE COURT: All right, thank you.

3 (Witness excused.)

4 MR. TONE: If the Court please, Ms. Sigel will
5 make an offering of documents to be sure that we have made
6 an offer of everything that should be offered.

7 THE COURT: Do you have a typewritten list of
8 those?

9 MS. SIGEL: I could.

10 THE COURT: Well, what would you prefer?

11 MS. SIGEL: If you would prefer that, I could cer-
12 tainly do that.

13 THE COURT: Or could we just borrow -- make a Xerox
14 of that list?

15 MS. SIGEL: You wouldn't be able to understand it.

16 THE COURT: Oh. Well, whatever is -- how long is it
17 going to take you to read that.

18 MS. SIGEL: I think that for time's sake, I will
19 just bring in a typewritten copy of it and we will have it
20 for you Monday.

21 THE COURT: Okay, why don't we do that.

22 MS. SIGEL: Okay.

23 MR. TONE: Fine.

24 MR. LYNCH: Your Honor, I would also like to offer
25 some exhibits. I have a list. I will have it typed up.

1 These are exhibits that have already been referred to.
2

3 THE COURT: Let's do it the same way. Each just
4 submit a list of your exhibits, and I think I have received
5 everything, haven't I, practically?
6

7 MR. TONE: I think you have, your Honor, everything
8 that has been offered. There may be some things that --
9

10 MS. SIGEL: Deposition designations.
11

12 MR. TONE: -- that have not been offered, depositions,
13 for example. That is the major item, I think.
14

15 THE COURT: Okay.
16

17 MR. TONE: That concludes all of our case, except
18 this clean-up of exhibits and Professor Kayton. Your Honor
19 will recall that Professor Kayton will be here Monday
20 morning.
21

22 THE COURT: Right.
23

24 MR. GOLDENBERG: So there is no question, sir, but
25 there is just one remaining witness, Professor Kayton?
26

27 MR. TONE: Yes.
28

29 THE COURT: Something I would like you to address,
30 and I don't know that it has been addressed in the briefs
31 filed thus far -- if it has and I have forgotten it, just
32 remind me-- and that is the question of the person of ordinary
33 skill in the art.
34

35 It seems to me that while this case is by no means
36 unique in this respect, it does present the situation where
37

1 a person having a license to practice the particular pro-
2 fession, for example, electronic engineering, may have no
3 skill at all in the actual art, which is for purposes of
4 discussion, we will say, the blending of the computer with
5 a pinball machine.

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1 And the questions that I was asking of the witness
2 this morning --

3 MR. SCHNAYER: Mr. Englehardt.

4 THE COURT: -- Mr. Englehardt, were in part directed
5 to this matter:

6 Is the person of ordinary skill in this art a person
7 who is quite sophisticated in electronics and digital logic
8 specifically, and who has acquired an extensive knowledge of
9 pinball games or, on the other hand, a person with extensive
10 knowledge of pinball games who has acquired great familiarity
11 with electronics and digital logic.

12 I suppose there must be lots of cases that deal with
13 arcane subjects and talk about who you're referring to when
14 you talk about a person of ordinary skill in the art or arts
15 or whatever it is. And you're probably familiar with the
16 law on that.

17 I just don't have it at my fingertips, and if you
18 can give me some help on that, I'd appreciate it.

19 MR. GOLDENBERG: Judge, I think there are such cases.

20 Indeed, we will give them to you.

21 And I think what you have seen here is really a,
22 sort of a common occurrence, that is, as electronics has come
23 into our lives, as it becomes itself more sophisticated, more
24 relatively available, more economical, it has entered
domains where it didn't exist before.

1 And so this matter of bringing a knowledge of
2 electronics and then to a specific industry or technology and
3 its problem, is a matter to which the Courts have addressed
4 themselves. And I think we could find guidance for you in
5 the decisions of the Courts.

6 THE COURT: Well, even if they don't deal with electron-
7 ics, there must be cases where more than one subject matter
8 was required to understand the invention, and the courts must
9 have talked about this person of ordinary skill in the art in
10 the art in the context of such inventions.

11 All right, I'll see you then a week from yesterday,
12 this coming Monday.

13 MR. TONE: Right..

14 THE COURT: At 9:30.

15 MR. TONE: Very well. I might only add, your Honor,
16 that the pretrial memorandum we filed contains a discussion
17 of the law, and I think a discussion on the subject of persons
18 of ordinary skill in the art.

19 But I guess I'd have to go back and read it to see
20 whether it's directly responsive to your Honor's questions.

21 THE COURT: Yes, I'll be reading those briefs myself
22 between now and Monday, I hope, and if it's in there already
23 for the plaintiff, you obviously won't have to do anything
24 more on it.

25 MR. TONE: Meanwhile, we'll take another look at it and

3
1 we'll probably want to supplement that.

2 THE COURT: All right, fine. Thank you.

3 MR. TONE: At what time, your Honor?

4 THE COURT: 9:30 Monday.

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6 (Whereupon the trial was adjourned at 3:25 p.m. until
7 Monday, March 26, at the hour of 9:30 a.m.)

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